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A STUDY OF ALTERNATIVE METHODS FOR CONTROLLING FARM MILK PRODUCTION AND SUPPORTING PRICES TO FARMERS FOR MILK AND BUTTERFAT

LETTER

FROM

SECRETARY OF AGRICULTURE

TRANSMITTING

A REPORT GIVING INFORMATION WITH RESPECT TO VARIOUS METHODS OF PRODUCTION CONTROL AND VARIOUS METHODS OF PRICE SUPPORT WHICH COULD BE MADE APPLICABLE TO MILK AND BUTTERFAT AND THEIR PRODUCTS



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LETTER OF TRANSMITTAL

DEPARTMENT OF AGRICULTURE,
Washington 25, D. C., January 3, 1955.

The SPEAKER,
HOUSE OF REPRESENTATIVES.

DEAR MR. SPEAKER: Pursuant to the requirement of section 204 (f) of the Agricultural Act of 1954 (Public Law 690, 83d Cong.), there is enclosed a report giving information with respect to various methods of production control and various methods of price support which could be made applicable to milk and butterfat and their products.

Sincerely yours,

E. P. BENSON, *Secretary.*

PREFACE

This study was undertaken pursuant to the Agricultural Act of 1954 which directed the Secretary of Agriculture to study various methods of production control and price support applicable to milk and butterfat and their products and to report to Congress on or before January 3, 1955, the probable costs and effects of methods studied and legislation, if any, needed. It was made by a work group representing each Department agency having responsibilities in areas studied. Invitations to submit suggestions outlining proposed methods were extended to all interested persons in accordance with the provisions of the act. (See appendix A.)

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A STUDY OF ALTERNATIVE METHODS FOR CONTROLLING MILK PRODUCTION AND SUPPORTING PRICES TO FARMERS FOR MILK AND BUTTERFAT

SUMMARY

This study is devoted to a consideration of major general methods that might be used to accomplish either of the objectives mentioned in the title to this report. It was not feasible to cover all of the many variants under each general method that has been proposed. Likewise, the consequences of a combination of programs involving 2 or all 3 of the possible approaches have not been completely analyzed. In general, it was assumed that the change in the particular method under study was the only change made from the present dairy program, and no changes were assumed in other agricultural programs, except where specifically stated. It might be that the type and number of programs used would depend upon the severity of the surplus situation. In cases of minor excesses, only a purchase method might be employed. With a moderate surplus, a purchase program may be used in combination with a system for payments. In a more severe situation, these two approaches might be combined with some measure to restrict milk production or sales. To point out some of the economic effects and problems arising under each method studied, an evaluation also was made of the different effects at 2 alternative levels of support—75 and 90 percent of parity. Certain basic assumptions were necessary in evaluating these effects and costs.

Developments in the dairy industry in recent years have brought influences from two directions which tend to depress average prices for milk and butterfat. On the one hand, demand for butterfat has declined considerably. This decline has been most pronounced in the case of butter but also has been noticeable in connection with butterfat used in cream, ice cream, and some other products. On the other hand, farmers have been induced to increase production and sale of milk as a result of many improvements in techniques of milk production, changes in economic relationships, and continued price-support activity. To support prices to farmers for milk and butterfat, the CCC in recent years has purchased unprecedented quantities of dairy products. Section 204 (f) of the Agricultural Act of 1954, which requires this study, was included after considerable debate as to the appropriate level of support for dairy products and some discussion as to the method of conducting such support.

An action program to help in solving the dairy problem, must be cognizant of the various particular characteristics of the dairy industry. Some of these are: Milk production is a continuous process and it occurs in practically every county; there is wide flexibility in use of milk; production varies seasonally more than consumption; both

production of milk and consumption of milk and dairy products respond slowly to price changes; milk and its products are generally recognized as among the most important foods from a nutritional standpoint; the domestic market is the principal outlet for United States milk production and United States prices are substantially above the world level.

In appraising alternative methods of controlling production and supporting prices, several criteria should be considered, including effectiveness in accomplishing objective, effects on production, utilization, prices and consumption of milk and its products, the cost to Government and to the population-at-large, incomes to dairy farmers and others, administrative problems for both Government and industry, and accumulation of surplus stocks.

In appraising alternative methods for supporting dairy prices, it is of interest to consider the situation that probably would prevail in the absence of a price-support program. With milk production showing some signs of stabilizing and continued high levels of employment and incomes, prices to farmers for manufacturing milk and butterfat over the next 2 or 3 years probably would average moderately below the present support level, possibly in the neighborhood of 70 percent of parity, if the support program were terminated. The average price for all milk, including fluid milk, would show a higher percentage of parity. These price projections assume that present Government stocks would be liquidated so as not to compete with current production and that import controls would be continued. Some of the specific effects of discontinuing the support program are roughly indicated in table 1, and would include a decline in cash receipts from the sale of dairy products, an increase in consumption, and wider seasonal changes in prices than recently. For some period, relatively greater declines could be expected in prices for manufacturing milk than for fluid milk, which are stabilized by many factors not closely related to the support program. In 3 or 4 years some increases in relative prices of beef cattle are likely, which would have a deterring effect on milk production and thereby would help improve the dairy price picture. Even with no support program, it is probable that domestic prices would continue above world prices so there would be no significant increase in exports. On the other hand, large imports would occur if import controls were removed, and prices and incomes would be depressed below levels indicated in table 1.

Prices to farmers for milk and butterfat can be maintained above an equilibrium level by one of three general approaches: (1) Imposing restrictions on production or marketings; (2) the Government (or some other agency) buying and withholding from the market a portion of the supply; and (3) permitting all output induced by above-equilibrium prices to flow into consumption and make payments to compensate for the difference between price actually received and the support objective.

PRODUCTION CONTROLS

Government-enforced individual producer controls over milk production to limit market sales have never been used, either alone or in conjunction with other methods to support prices. Control of milk production could be obtained with varying degrees of success and costs by sales quotas, limiting cow numbers, and feed restrictions.

Milk sales quotas which operate directly on output would tend to induce a more satisfactory allocation of resources among producers, areas, and regions, than would methods of control which place restrictions on input factors. More effective control per dollar of cost probably could be achieved by output quotas but any quota plan would tend in some degree to freeze existing patterns of resource use and to slow down desirable long-run adjustments toward lower cost and more efficient production.

Major variants of sales quota plans include:

1. Quotas with penalties for excess marketings;
2. Quotas with payments for reduction in marketings;
3. Quotas with payments on quota milk only;
4. Quotas transferable with decreasing payments;
5. Quotas with price insurance;
6. Quotas enforced only by legal action.

Each of these quota methods would call for rigid controls of production and marketing. Difficult administrative problems would be involved in establishing equitable quotas for the approximately 1.5 million dairy farmers who would participate. These problems would be greater than for storable crops because milk is more perishable. Moreover, milk is produced and sold under different conditions from those for crops on which acreage allotments and marketing quotas have been used. For example, the fact that market demands differ for fluid milk and manufacturing milk raises a difficult problem of developing regionally equitable quotas. Again, any production in excess of a producer's quota could not be stored by him for sale in a future period (as is possible under most marketing quotas for storables), but would have to be used on the farm or sold with consequent effects on prices and program cost.

Cow numbers could be limited by a culling program or cow allotments, but any reduction in numbers could be offset in whole or in part by increases in yields. Also, any large-scale removal of cows would affect beef-cattle prices. Controls over production in the form of restrictions on feed grains could take the form of a feed-grain storage program, a tax on dairy feeds, or rationing of the quantity of feed used for dairy production. A basic difficulty with this approach is that much of the feed used for milk production comes from home-produced forage and concentrates.

The proposals outlined thus far are directed solely toward the problems of dairy production and marketing. If desired, a broader program might be developed to help fit dairy production into the framework of a generally more efficient agriculture. Such a program might include special assistance from the Government to improve efficiency of certain dairy farmers and to aid others in shifting to different lines of farm production or to opportunities outside of agriculture. Besides payments to convert production to a more efficient basis, this program might involve supervised credit to finance adjustments and grants to educate and retrain farmers for other occupations—in areas involving products or services for which demand may be increasing.

Further expansion of disease control and eradication programs, particularly for brucellosis, would tend to reduce milk cow numbers temporarily and thereby the milk supply. In recent years about 3 percent of the milk cows tested for brucellosis were found to be reactors and around half of these were slaughtered. Since this disease in cattle

can be transmitted to humans as undulant fever, a broadened program possibly including larger indemnity payments, might well be justified. The effect of such a program in reducing volume of milk would be temporary as would other programs involving reductions in cow numbers. After a few years, average productivity of dairy cows would be greater than before. However, the period of lower output may well coincide with the time when surpluses otherwise would be the most troublesome. In the long run a disease-eradication program would contribute to lower cost of milk production as well as to a safer milk supply.

METHODS OF SUPPORTING RETURNS TO FARMERS

Two general methods of supporting returns to farmers are: (1) For the Government (or some other agency) to remove from the commercial market those quantities which would not move into consumption at the support price, and (2) for the entire supply to be permitted to move freely into consumption at whatever price it would bring and payments made equal to the difference between the support price and the average market price. Each approach would have about the same effect on milk production, assuming price support at the same level. But there would be significant differences as to their effects on consumption and utilization of milk, cost to the Government and consumers, and administrative problems involved. These effects naturally would vary, depending upon the specific mechanics of operation employed. Many variations of the two general approaches covered in this study would be possible.

DAIRY PRODUCT PURCHASES

Prices to producers for milk and butterfat would continue to be effectively supported by Government purchases of dairy products at prices that would reflect the announced level of price support to producers, as authorized by the amended Agricultural Act of 1949. This method provides farmers a market for all of the milk and butterfat produced but can result in a severe storage problem. The Department had a great deal of experience in buying dairy products to support prices to farmers before World War II, to acquire supplies during and immediately after the war for military, lend-lease, and foreign assistance purposes, and for price-support purposes in recent years. The largest price-support purchases were in the 1953-54 marketing year when CCC removed from the market the equivalent of 11 percent of the total farm marketings of milk and butterfat in supporting prices at 90 percent of both the parity price for butterfat and of the parity equivalent price for manufacturing milk.

Since the purchase method tends to maintain market prices of both fluid milk and manufactured dairy products at levels corresponding to the support level, this method tends to restrict consumption to those quantities that consumers will buy at the equivalent of the support level. Distribution of Government stocks for school lunch, welfare, and other uses, may utilize only part of the supply removed from the market under the program.

The quantity of dairy products that can be used in school lunch, welfare, and other outlets is an important consideration in determining the level of prices that can be supported by purchases if large

stocks are not to be built up. Dairy products normally are stored for one season only and the quality risk in longer storage makes it inadvisable to operate price-support programs on a basis that requires carrying dairy products in storage for substantially longer periods.

Since production conditions generally change little within a marketing year, sales of dairy products back to the market generally cannot be depended upon as a major outlet for dairy products acquired under support programs. Sales at world prices for commercial export also do not represent an immediate outlet for large quantities without seriously disturbing foreign markets for dairy products. School lunch and welfare uses of dairy products donated for those purposes in the United States and in foreign countries are the principal outlets under present conditions which apparently can use up to about 6 percent of the yearly farm marketings of milk and butterfat. The estimated increase in consumption by military personnel, as authorized in the Agricultural Act of 1954, is an outlet for less than 1 percent of the total supply.

The purchase method involves purchase contracts, storage, reinspections, sales, donations, and detailed accounting for control of operations. While this method is administratively feasible the accumulation of inventories creates serious storage and quality-maintenance problems.

By holding domestic market prices above foreign prices, the purchase method of support tends to attract imports of dairy products which, unless restricted, would increase Government price-support purchases and materially interfere with the support program. Also, the chances of exporting dairy products are reduced.

LOANS ON DAIRY PRODUCTS

Nonrecourse loans to manufacturers and storers of dairy products at loan rates corresponding to market prices of the products that would reflect the price-support level to producers for milk and butterfat would have about the same effects as the purchase method on prices to producers, on prices to consumers, and on consumption of milk and its products. It would involve the same problems of finding outlets for dairy products acquired under the loan program. However, it might be more difficult to plan dispositions in school lunch, welfare, and other outlets until CCC acquired supplies either by calling loans or by maturity of them.

DIRECT PAYMENTS TO PRODUCERS

Unit returns to farmers for milk and butterfat could be effectively supported by direct payments to them on their sales of such products. Market prices of milk and its products would be determined mainly by market supply and demand influences at levels at which consumers would buy the total available supplies. Federal orders would continue to operate in milk markets where prices would be adjusted through the functioning of the formulas or other provisions or by amendments of the orders. Likewise, some State orders might need to be amended. Payments to farmers would be based on the differences between the announced support prices and the average or prevailing prices received by farmers for milk or butterfat. A supple-

mental limited purchase program to prevent unduly wide market fluctuations might facilitate the determination of payment rates and the administration of the payment program. Such purchases could be limited to quantities that could be readily used currently in school lunch, welfare, and similar outlets without accumulating large inventories.

CCC made direct payments to farmers on milk and butterfat from October 19, 1943, through June 1946 under wartime authority. Additional legislation now would be necessary, however, to authorized payments as a dairy price support method.

Returns to producers for milk and butterfat could be supported at any desired level by use of payments. This method would result in the consumption of the total available supply in commercial market outlets. Under this method domestic prices would be less attractive to imports than under a purchase method. However, there could still be import problems on some commodities.

The method would require a larger administrative staff to receive, check, and pay about 1½ million applications in each payment period. The program could be administered through the existing local agricultural stabilization and conservation committees.

PAYMENTS TO PROCESSORS AND DEALERS

Another method of supporting prices to producers for milk and butterfat would be to make payments to processors and dealers on all milk and butterfat purchased from farmers and on retail sales by farmers. Wholesale and retail prices of milk and its products would be determined principally by market supply and demand influences at levels at which consumers would buy and consume the total available supply. To enable processors and dealers to pay farmers prices for milk and butterfat corresponding to the support level, CCC would make payments to processors and dealers based on differences between the prevailing market price level and those prices that would have reflected the support to producers. Federal orders would continue to set minimum prices for milk through pricing formulas or by amendments where necessary to provide for appropriate adjustments. Payments to processors and dealers, like direct payments to farmers, would result in the consumption of the total available supply in commercial market outlets. The operation of the program and the orderly pricing and marketing of dairy products would be aided (if unduly wide fluctuations tended to persist) by a supplementary program of buying limited quantities of dairy products that could be used in school lunch and other programs without piling up large inventories.

A somewhat similar method could be used with payments confined to milk and butterfat used in manufacturing certain dairy products or to the quantity of such products produced. Market prices of fluid milk and other dairy products not included in the program would remain at levels corresponding to the support prices to the producers and the consumption of such milk and dairy products would tend to be restricted to those quantities that consumers would buy at such price levels. The excess milk and butterfat would be channeled into

the production of the dairy products subject to payments and their market prices would decline to the level at which the total supplies could be sold through commercial trade outlets. The payment rates would be based on the differences between the prevailing market prices and those prices of the products that would reflect the support level to producers for manufacturing milk and butterfat. This method might require drastic reductions in prices of the few products to move the increased supplies of those products in periods of extensive surpluses. It might result in wide swings in market prices and supplies of those products as moderate changes in total milk production or consumer demand brought about large changes in the production of the few products.

CCC made payments to processors of Cheddar cheese and payments to dealers in a number of fluid milk markets during and immediately after World War II. Additional legislation would be needed now, however, to authorize payments to processors and dealers as a dairy price support method.

PAYMENTS ON INCREASED USES OF DAIRY PRODUCTS

Payments might be made on certain uses of milk and its products as one method of indirectly supporting prices to producers. For example, payments might be made on the use of dairy products in bakery products, other prepared foods or industrial purposes. The probable increase in such uses probably would represent a very small percentage of the total consumption of milk and its products. The program would encounter problems of defining and controlling the eligible uses and of providing opportunity for the thousands of small users to participate and thereby maintain their competitive positions.

BARGAIN-SALE PLAN

The bargain-sale plan is a proposal to reduce any existing large CCC stocks by lowering the average price of butter or cheese to consumers, thus stimulating consumption. For example, CCC could offer to sell butter at a low price to distributors who, in turn, would sell print butter to commercial trade outlets at reduced prices based on the weighted average cost of butter acquired from CCC at the low price and of butter from current production at prices corresponding to the support level. As an alternative, the distributors might sell the print butter for resale to consumers on the basis of a low price for additional butter with each sale of butter at the regular price. Meanwhile, prices to producers for milk and butterfat would continue to be supported by Government purchases of dairy products.

In order to dispose of existing large stocks, the Commodity Credit Corporation would have to sell a large quantity of butter at a very low price in order to cause average retail prices of all butter to drop enough to increase consumption substantially. Furthermore, consumption would increase by less than the volume of CCC sales to distributors, because the CCC butter would partly replace commercial supplies from current production. CCC would have to buy, in addition to its other price-support purchases, a quantity equal to this

replacement. It is estimated that it would be necessary for CCC to buy from current production an additional quantity of butter equal to more than half of the quantity that would be sold under such a plan. For example, if CCC sold 50 million pounds of butter per month to distributors at 1 cent per pound, this would permit a decrease in retail price of about 29 percent. If consumption increased as much as 29 percent, which is highly improbable, total monthly consumption in commercial outlets would increase by only 26 million pounds. It would be necessary for CCC in effect to buy back 24 million pounds at prices corresponding to the support level.

To the extent that the plan resulted in increased consumption, however, the CCC inventory would be correspondingly smaller than without the plan.

The plan would involve other difficult problems: Establishment of CCC sales quotas for all distributors, prompt delivery of butter on an equitable basis, coordination of the distribution of CCC butter and currently produced butter, and provision of means for 2,000 creameries, which sell some print butter locally but could use only small quantities of CCC butter, to participate and maintain their competitive positions. It would be necessary to rely upon competition to reduce prices to consumers because to police and enforce regulations concerning distribution and pricing of butter in trade outlets throughout the Nation would not be practicable.

EFFECT OF PRICE-SUPPORT METHODS ON DAIRY PRODUCTION AND UTILIZATION

The effect of price support on milk production depends mainly upon the support level for milk and butterfat, prices of other farm commodities, supplies of feeds, and other production conditions. Assuming farmers were assured the same support per 100 pounds of milk or per pound of butterfat, the effect on total milk production probably would be about the same regardless of method.

The purchase method of support tends to restrict the consumption of milk and its products in commercial trade channels to the quantities that consumers will buy at prices corresponding to the support level. At least part of the supplies removed from the market are diverted for consumption in school lunch, welfare, and other outlets. Direct payments to farmers on all milk and butterfat, or payments to processors and dealers on all milk and its products, would result in the consumption of the total supplies of milk and its products in commercial market outlets. In the case of payments to processors limited to a few dairy products, consumption of fluid milk and other dairy products would be those quantities that consumers would buy at prices corresponding to the support level; the increased total supplies of products subject to payment would be marketed in commercial outlets, their prices declining enough to induce consumers to buy the total supplies.

TABLE 1.—*Comparison of alternative dairy-price-support programs: Production, farm marketings, consumption, cash farm receipts and consumer costs* [1]

Item	Unit	No program	75 percent of parity		90 percent of parity	
			Purchase and diversion	Direct payments	Purchase and diversion	Direct payments
Production [2]	Billion pounds	120	122	122	125	125
Farm marketings	do	103	105	105	108	108
Cash receipts:						
Farm marketings	Million dollars	3,700	3,900	3,550	4,575	3,350
Direct Government payments.	do			350		1,225
Total	do	3,700	3,900	3,900	4,575	4,575
Prices:						
Support prices: [3]						
Manufacturing milk.	Dollars per hundredweight.		2.95	2.95	3.55	3.55
Butterfat	Cents per pound		55.5	55.5	66.5	66.5
Market prices: [4]						
All milk wholesale	Dollars per hundredweight.	3.60	3.75	3.40	4.35	3.15
Manufacturing milk.	do	2.80	2.95	2.60	3.55	2.35
Butterfat	Cents per pound	52.5	55.5	49.0	66.5	44.0
Disposition:						
Domestic civilian consumption: [4]						
Total	Billion pounds	113	111.5	114.7	107.0	117.0
Per capita	Pounds	(707)	(698)	(718)	(670)	(732)
Surplus	Billion pounds		3.7		11.5	
Other uses [5]	do	7	6.8	7.3	6.5	8.0
Total	do	120	122.0	122.0	125.0	125.0
Cost to consumers [6]	Million dollars	8,250	8,300	8,200	8,500	8,100
Cost to Government	do		150	350	525	1,225
Total	do	8,250	8,450	8,550	9,025	9,325

[1] Basic assumptions underlying data in this table are that the level of economic activity, population and employment would approximate that of the average in 1953–54. "No program" means only that there would be no support program on manufacturing milk and butterfat. Marketing orders and other phases of agricultural programs are assumed to continue as now in effect.

[2] These levels would be the estimated production for each price-support level after some time had been allowed for adjustment to such level. A longer (or shorter) period of adjustment would result in greater (or smaller) differences in production among levels. It was assumed that about a 2-percent change in production would be associated with a 10-percent change in relative price, for a comparatively short-term period. Extrapolating beyond the near-term period would require additional allowance to take into account longer-run technological changes which occur in the production phase of dairying as well as longer-term economic adjustments.

[3] "Parity" prices for all milk wholesale and for butterfat are based on a parity index of 280, the approximate level realized during 1953–54. The "parity equivalent" price for manufacturing milk was assumed to be 84.1 percent of the parity price for all milk wholesale. Support prices of 75- and 90-percent levels were rounded.

[4] The quantities shown are the approximate amounts that would be consumed at the corresponding market prices (supported or nonsupported). The estimated quantities consumed at the different assumed price levels were computed as follows: (1) consumption under the 75 percent of parity level was approximated from the rate of consumption in the period following April 1954 (when 75 percent of parity supports became effective) and (2) consumption rates for other price levels were computed on the basis of average relationships between prices and consumption, applied to the price-quantity relationship under the 75-percent-of-parity situation. Deviations from the base-price quantity were computed assuming that a 10-percent change in retail price was associated with changes in the quantities consumed in the opposite direction of approximately 4 percent for fluid milk and cream and an average of about 7 percent for manufactured dairy products. Adjustments were made only in the quantities consumed off farms. The domestic civilian consumption figure also includes consumption on farms where milk is produced.

[5] This category includes feed uses, consumption by the military and allowance for imports and exports. It was assumed that exports would range from a low of 1 billion pounds at the 90-percent of parity support level under purchase and diversion to about 2.5 billion pounds at the same support level under a system of direct payments and accompanying lower market prices.

[6] Aggregates of retail prices times civilian domestic consumption, excluding milk used for consumption on farms where produced. Prices of milk and manufactured dairy products at all marketing levels for period following April 1954 were used as a starting point for establishing the level of retail prices. In establishing differences in retail prices among price levels it was assumed that marketing costs remained the same and sufficient time was allowed for adjustments in retail prices to reflect fully the changes in prices received by farmers.

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COMPARATIVE COSTS OF PURCHASE METHOD AND DIRECT PAYMENTS

The direct purchase program differs considerably in several respects from any one of the variants of the direct-payment types of programs. With respect to the cost to the Government, the outlay would be substantially greater under a system of direct-payments than under purchase and diversion arrangements such as now conducted. This would be true even if there were no recovery from products purchased. Under a direct-payment program, however, the retail prices of dairy products would be lower and consumption would be greater than under a direct-purchase operation. Despite larger consumption in the former case the cost to the population at large (retail cost plus taxes to support the program) would be essentially the same under the two programs.

Several price-support plans that would be industry operated and at least partly financed by producers have been proposed. They would embody one or more of the purchase, payment, or quota methods discussed in this report. They would provide for varying combinations of Government and industry financing and for administration of the programs, including determination of support level, direction of program operations, and determinations of fees to be collected from producers by an industry board represented wholly or mainly by producers. Industry financing generally would be through fees collected from producers whether such programs were operated by the Government or by an industry board. They would involve substantially the same administrative problems, the same total costs in purchases or payments to support the same level of prices to producers and the same problems of limited outlets for products acquired under the program by sale or donations to school lunch, welfare, and other outlets, as well as similar problems of international trade and relationships in connection with commercial exports. Fees levied on farm sales of milk and butterfat, however, would reduce the support levels to producers correspondingly. The extent to which the cost of price support would be shifted from the Government to producers would depend upon who bore the cost of products donated to school lunch, welfare and other uses and upon the amount of fees collected from producers compared with the total cost of program operations.

MARKETING ORDERS

The highly perishable nature of fluid milk makes it necessary to have established in advance of production a systematic procedure for determining prices of milk used in fluid distribution. One of these methods is milk-marketing orders now used in 53 local milk-market areas to equalize bargaining between farmers and distributors. The principal objective of these orders is to establish a series of minimum prices for milk used for each purpose at levels intended to reflect local supply and demand conditions.

Marketing orders prevent sharp price reductions arising from bargaining inequalities and therefore they have resulted at times in higher prices to producers than would occur in the absence of regulation. On the other hand, unregulated prices to producers may result in widely fluctuating supplies and prices which could bring about higher longtime average prices than occur in regulated markets.

Under marketing orders, prices are adjusted promptly, but less sharply than in a free market, to changing economic conditions. Removal of price uncertainty permits producers to make production plans and commitments with greater confidence than under conditions of price uncertainty which often prevail in the absence of price regulation. Consequently, a greater production usually accompanies a given price level than in the case of unregulated market conditions. During recent years price-support programs for manufactured dairy products have been an important influence in determining the level of all dairy prices, including prices of fluid milk in regulated markets.

Marketing agreements were adopted in the 1930's for evaporated milk and nonfat dry milk solids in an attempt to correct unstable prices and marketing conditions for those two products. Marketing agreements and orders are well adapted to the maintenance of orderly marketing and pricing conditions in the fluid milk industry and they could be used for such purposes in the manufacturing milk industry. However, they are not by themselves an adequate method for maintaining prices to producers over long periods of time at levels unrelated to market supply and demand conditions. Such a pricing policy would generate surpluses for which no market outlet was provided by the marketing order or agreement program. This situation could be corrected only by controlling the production or marketing of milk or by providing alternative outlets for the surplus supplies.

INCREASING CONSUMPTION OF MILK AND DAIRY PRODUCTS

Several factors aside from price affect the level of consumption of milk and dairy products. Considerable opportunity exists for expanding the demand for milk and dairy products. Moreover, greater consumption would contribute to improvement in the health of the Nation's population and has long been recommended by nutritionists. While many different programs have been suggested to increase consumption, none of them by itself is directly a price-support method. However, they are important adjuncts to any price-support program tending to decrease the quantities of milk and dairy products on which price support must be provided or outlets for commodities acquired.

One major group of methods involves industry and Government action to increase commercial demand. Evaluation of the success of such programs, however, should not be based on immediate effects. Considering that a change in consumption habits is involved, long-term effects are likely to be more important. This group includes action to improve merchandising methods such as increasing the availability of dairy products to stimulate "impulse" purchases, to reduce marketing costs, to expand sales promotional programs for encouraging increased purchases, to develop new and better dairy products, and to conduct research and educational work to inform consumers of the nutritional value of dairy products. Programs of this nature could be financed partly by voluntary assessments, processing taxes, or some other means.

Another group of methods involves distribution programs—programs seeking to increase consumption of surplus dairy products by children in schools and by low-income persons. The short-run objective of this method is to increase demand for, and consumption of, foods in plentiful and surplus supply. The long run objective is to

help bring about higher levels of food consumption that will result in better markets for agricultural commodities and improve health and nutrition. This approach was started initially to provide outlets for surpluses acquired under Government programs. Several methods now in operation or which have operated in the past, however, involve modifications under which the surpluses would be lessened by increased consumption through commercial channels.

These distribution programs offer large outlets for dairy products. Use of these outlets depends upon the number of persons in each group coupled with the willingness of the Government to underwrite a substantial share of the cost of the program. For example, under the direct distribution program (in which the Government donates food acquired under price support to school-lunch programs and for domestic and foreign use by needy people) it is estimated that up to 730 million pounds of dairy products will be moved in 1954–55 at a cost of over 250 million dollars. Consumption of fluid milk in schools is being encouraged with Government assistance through two programs. Under the national school-lunch program, which is financed in part by grants of appropriated Federal funds and donated foods, school children consumed in 1953–54 about 850 million pounds of milk, as a beverage. The $50 million available for the special school milk program announced for 1954–55 (and authorized for 1955–56) will permit an increase in consumption of over 600 million pounds of fluid milk on an annual basis.

Low-income families represent an unknown potential outlet for increased consumption of milk and dairy products. No program is currently authorized to reach this group, but various proposals have been advanced for some type of food-stamp or food-allotment program to increase the level of food consumption among low-income families, particularly for foods in surplus or plentiful supply. In addition, some consideration has been given to a similar plan restricted to fluid milk. Such a program might provide an outlet for an additional 750 million pounds of milk annually or between 1 and 2 percent of present fluid milk consumption. It is estimated that a program of this size would cost about $75 million. However, there are difficult administrative problems involved in programs of this type, as indicated by experience with the stamp plan. Limited experimental operations would be required to determine the most effective administrative and operating techniques prior to establishment of any national program.

INTRODUCTION

To support prices to farmers for milk and butterfat, the Commodity Credit Corporation in recent years has purchased unprecedented quantities of manufactured dairy products. These products are relatively perishable and Government holdings now exceed foreseeable outlets. Fundamental problems are facing Members of Congress and others responsible for formulation of agricultural price policy concerning both the method of conducting any price support and the level of any such support. The Agricultural Act of 1954 contains the following provision (sec. 204 (f)):

> The Secretary of Agriculture is directed to make a study of the various methods of production control and of the various methods of price support which could be made applicable to milk and butterfat and their products, including programs to be operated and financed by dairymen; and to submit to Congress on or before the third day of January 1955, a detailed report thereof showing among other things the probable costs and effects of each type of operation studied and the legislation, if any, needed to put it into effect. The purpose of the study and report is to develop basic material which can be used by Congress in formulating an improved agricultural program for milk and butterfat and their products. Alternative programs are to be submitted for consideration by Congress and for possible submission to a referendum of dairy farmers. The Secretary may conduct such hearings and receive such statements and briefs in connection with such study as he deems appropriate.

This section of the law was included after considerable debate as to the appropriate level of support for dairy products and some discussion as to the method of conducting such support. While the wording of section 204 (f) is directed almost exclusively to a consideration of methods of controlling production and supporting prices, a small section of the report involves an evaluation of the consequences of two alternative levels of price support. This was done merely to point out the differences in magnitude of the problem and differences in some economic effects.

METHOD OF CONDUCTING THE STUDY

To conduct this study, the Secretary of Agriculture appointed a work group with representation from each agency of the Department having responsibilities for any phases involved. Members of this work group, moreover, were authorized to call upon any other specialists in the Department who might be able to contribute to a more effective analysis. On October 13, 1954, a task force committee from the dairy industry met in Washington, D. C., and discussed the section of the law under which the study was to be made. Following that meeting invitations were extended to individuals throughout the United States to submit briefs to the Secretary of Agriculture concerning any method for controlling the production of milk or for supporting the prices of dairy products. Each proposal received was thoroughly considered, but everyone may not be explicitly recognized as having been treated in the following analysis. This was the result mainly of attempting to deal with the general methods rather than discussing the numerous variants of each method that could be proposed.

SOME ECONOMIC DEVELOPMENTS LEADING TO THE PRESENT PRICE SUPPORT PROBLEM

In the earlier part of this century milk production on farms in the United States tended to increase rather closely with the population. Fluctuations in both prices and incomes received by farmers usually varied less with changes in business conditions for dairy products than for most other farm products. Dairy products came to be looked upon as a relatively certain source of steady cash income. The ready source of cash from the sale of milk products tended to shift farmers into milk production and sale during generally adverse economic situations. This was noticed particularly in the early 1930's. During World War II and in the early part of the postwar period, on the other hand, there was some shift away from the production of milk as dairy farm labor became scarce and higher in cost and alternative sources of income looked more promising. From 1940 through 1952 there was a rather steady reduction in per capita production of milk.

Beginning in late 1952 a substantial expansion in annual rate of milk production became apparent. This was partly associated with favorable weather conditions but there apparently also have been several fundamental changes in other conditions affecting milk production. These are partly economic and partly technological. The economic conditions include less attractive farming alternatives, price supports on dairy products, and on some occasions, relatively fewer nonfarm opportunities for employment. The net effect of these developments was to make available for milk production a relatively larger quantity of total farm resources. Simultaneously with this development seems to have been the appearance of cumulative effects of several technological advances.

Also there have been changes in the structure of consumer demand for dairy products—changes which have very profound economic consequences for dairy farmers. The most outstanding change has been the decline in demand for milkfat in its several forms, particularly in butter, in fluid cream and very recently in making ice cream. There have been increases in demand for some dairy products, particularly those containing nonfat components of milk. Total milk consumption has risen but there has been a decided dropoff in demand for milk products as a whole. Butter consumption per capita has declined from 16.7 pounds in 1935–39 to 9.0 pounds in 1954. If present-day consumption per person were at the 1935–39 level, the present population would require around 145 billion pounds of milk compared to 124 billion produced in 1954. In short, farmers today are producing and selling milk and butterfat at relatively lower prices than in former years. On the average, hourly and annual returns to dairymen in recent years have lagged considerably behind those for other types of farming operations. On the other hand, consumers are buying less dairy products per person than formerly. Both of these developments have worked to lowering the relative prices for dairy products.

While the penetrating effects of these changes in both production and consumption were taking place, there was continued price support on dairy products, although not in all years were actual purchases necessary. Some price support operations were conducted by the Department of Agriculture in the 1930's. These activities, however, were designed to increase prices to farmers for milk and butterfat

toward parity from the area of 50 to 60 percent of parity and there was no specific level announced or required. In an effort to expand production of milk, specific support levels were announced for dairy products in April 1941. Demand at that time was increasing rapidly and actual prices continued above the support level actually announced. The Secretary of Agriculture by public announcement requested an increase in milk production and under the provisions of the so-called Steagall amendment (sec. 4 of the act of July 1, 1941, as amended) was required to support prices received by farmers for milk and butterfat at 90 percent of parity during the war and for 2 years following the close of hostilities. At the end of 1946 it was officially declared that hostilities had ceased, so price support under this provision of the law was scheduled to terminate at the end of 1948. Title I of the Agricultural Act of 1948 specified that milk and butterfat prices were to be supported at 90 percent of parity until January 1, 1950. The Agricultural Act of 1949 introduced the range of 75 to 90 percent of parity, the exact level in that range to be established by the Secretary of Agriculture at a level necessary to assure an adequate supply. Support was continued at or close to 90 percent of parity through March of 1954 (except for 1950–51). Effective April 1, 1954, the supports were lowered to 75 percent of parity. The existence of price support on dairy products, especially when announced for a period well into the future, probably resulted in a larger output of milk than otherwise would have been the case. This is sometimes called the effect of so-called forward pricing.

TABLE 2.—*Selected background data concerning the American dairy industry, 1925–54*

Year	Number of milk cows on farms [1]	Production per milk cow [2]	Total milk production on farms [2]	Milk sold to plants and dealers		Total sales of milk by farmers	Weighted average price received by farmers		Cash receipts from marketings of all milk and cream [3]	Income from dairy products as percentage of total cash receipts [4]	Price received by farmers as percentage of parity			Per capita production of milk [7]	Per capita consumption of all milk products [7]	Surplus bought by U. S. Department of Agriculture [8]
				As whole milk	As farm-skimmed cream		Milk delivered to plants and dealers, per 100 pounds	Butterfat in cream, per pound			Milk delivered to plants and dealers [5]	Butterfat in cream [5]	All farm products [6]			
	Thousands	*Pounds*	*Millions of pounds*	*Millions of pounds*	*Millions of pounds*	*Millions of pounds*	*Dollars*	*Cents*	*Millions of dollars*	*Percent*	*Percent*	*Percent*	*Percent*	*Pounds*	*Pounds*	*Millions of pounds*
1925	21,503	4,218	90,699	26,830	30,417	63,517	2.38	42.4	1,515	13.7	93	99	95	783	790	----------
1926	21,312	4,379	93,325	27,707	32,123	66,227	2.38	41.6	1,566	14.8	97	100	91	795	807	----------
1927	21,191	4,491	95,172	28,600	33,356	68,520	2.51	44.5	1,685	15.7	101	106	88	800	801	----------
1928	21,223	4,516	95,843	30,367	32,814	69,899	2.52	46.1	1,756	16.0	97	104	91	795	793	----------
1929	21,618	4,579	98,988	33,347	33,808	73,998	2.53	45.2	1,838	16.3	97	99	92	813	800	----------
1930	22,218	4,508	100,158	34,497	33,974	75,318	2.21	34.5	1,607	17.8	89	80	83	814	808	----------
1931	23,108	4,459	103,029	34,614	35,468	77,058	1.69	24.8	1,277	20.1	77	66	67	831	826	----------
1932	24,105	4,307	103,810	33,501	36,095	76,624	1.28	17.9	986	20.8	68	56	58	832	820	----------
1933	25,062	4,180	104,762	33,705	36,524	77,302	1.30	18.8	1,004	18.9	70	59	64	834	803	869
1934	25,198	4,033	101,621	33,869	33,867	74,817	1.55	22.7	1,146	18.2	75	66	75	804	803	675
1935	24,187	4,184	101,205	35,647	32,564	75,188	1.74	28.1	1,310	18.5	81	80	88	795	790	244
1936	23,727	4,316	102,410	38,777	31,904	77,415	1.93	32.2	1,478	17.7	87	91	92	800	782	82
1937	23,340	4,366	101,908	40,470	30,644	77,681	1.97	33.3	1,525	17.3	87	89	93	791	787	104
1938	23,215	4,558	105,807	42,657	32,728	81,834	1.72	26.3	1,388	18.0	81	75	78	815	785	2,916
1939	23,273	4,589	106,792	43,801	32,987	83,005	1.68	23.9	1,346	17.2	80	71	77	816	813	515
1940	23,671	4,622	109,412	47,152	32,965	86,226	1.82	28.0	1,521	18.2	84	84	81	828	807	397
1941	24,288	4,738	115,088	52,062	33,967	91,977	2.19	34.2	1,900	17.1	94	96	93	863	791	238
1942	25,027	4,736	118,533	59,076	31,080	96,018	2.58	39.6	2,330	15.1	97	98	105	879	821	----------
1943	25,451	4,598	117,017	59,656	29,871	95,266	3.12	49.9	2,785	14.5	[9] 109	[9] 111	113	856	740	----------
1944	25,597	4,572	117,023	63,680	26,026	95,456	3.21	50.3	2,915	14.4	[9] 119	[9] 115	108	846	753	----------
1945	25,033	4,787	119,828	68,929	23,868	98,373	3.19	50.3	3,021	14.1	[9] 113	[9] 119	109	856	777	----------
1946	24,089	4,886	117,697	69,619	21,379	96,350	3.99	64.3	3,709	15.1	[9] 120	[9] 127	113	832	775	----------
1947	23,329	5,007	116,814	70,559	20,952	96,418	4.27	71.8	4,013	13.5	102	108	115	810	758	----------
1948	22,336	5,044	112,671	69,010	19,712	93,294	4.88	79.9	4,389	14.5	107	109	110	768	714	----------
1949	22,024	5,272	116,103	73,290	19,949	97,473	3.95	61.6	3,748	13.4	92	89	100	778	724	2,541
1950	21,944	5,314	116,602	74,205	20,208	98,348	3.89	62.0	3,719	13.1	89	88	101	769	731	3,666
1951	21,616	5,313	114,841	74,172	18,715	96,691	4.58	71.1	4,250	13.0	97	93	107	744	707	13

1952	21,615	5,329	115,197	76,936	17,201	97,788	4.85	74.9	4,566	14.0	102	99	100	734	694	348
1953 [10]	22,256	5,447	121,219	83,605	17,157	104,246	4.32	65.8	4,370	13.9	93	89	92	759	688	9,981
1954 [11]	22,550	5,500	124,000	----------	----------	----------	4.00	58.0	4,180	13.9	85	78	89	763	697	9,050

[1] Average number during year, heifers that have not freshened excluded.
[2] Excludes milk sucked by calves and milk produced by cows not on farms.
[3] For 1950 and earlier years includes also cash receipts from farm-churned butter sold. Excludes production payments, October 1943–June 1946.
[4] Based on cash receipts from dairy farming, excluding production payments, 1943–46, and total cash receipts from farm marketings of livestock, their products, and crops, excluding Government payments.
[5] 12-month simple averages of milk and butterfat prices as percentages of annual parity prices. Parity prices computed using formula specified in Agricultural Act of 1949 and revised index numbers. This formula became effective Jan. 1, 1950; data for earlier years are shown only for comparative purposes.
[6] Published in Agricultural Prices as "parity ratio" (1910–14=100).
[7] Per capita production computed on basis of total population July 1; per capita consumption computed for civilian population, adjusted for underenumeration.
[8] Whole milk equivalent of butter, cheese, and evaporated milk.
[9] Includes production payments.
[10] Preliminary.
[11] Partly forecast.

So far, price support on dairy products has been provided by removing from the national market enough products made from milk to result in the desired price level for milk and its products. There has been no element of limitation on the quantities that may be produced or sold by individual milk producers under the price-support program. This makes dairy products different from the basic commodities where there are either acreage controls or marketing quotas to limit supply on the national market. A sufficiently rigid limitation on supply can result in the desired level of prices without any purchases or loans to remove products from the market.

DAIRY INDUSTRY CHARACTERISTICS AFFECTING THE FEASIBILITY OF ALTERNATIVE PRODUCTION CONTROL OR PRICE-SUPPORT METHODS

A number of important characteristics of the dairy industry influence the relative feasibility of possible alternative methods of controlling the farm production or marketings of milk and its products and of supporting returns to farmers for milk and butterfat. They include the following:

1. Milk is produced throughout the Nation on a continuing year-round basis under varying degrees of specialization and different production conditions. Milk and farm-separated cream are delivered from farms to processors or dealers either daily or every 2 or 3 days. They are highly perishable and there is considerable range in quality associated with the frequency of deliveries and the care and handling on the farms, en route to processing plants and in the plants.

2. Dairy farming requires a relatively large fixed investment, and several years are required to raise calves to milking age. Changes in total milk production in response to price changes are relatively slow. Supplies of feed grains, mill feeds, and other concentrates, harvested hay and silage, and pasture conditions influence milk production. Many dairy farmers produce most or all of their own feeds. Many others buy and feed large quantities of grains and concentrates.

3. About 124 billion pounds of milk were produced on farms in 1954. Farmers sold an estimated 107 billion pounds of this milk in one form or another. This includes 4 billion pounds that they retailed as milk and cream or sold in the form of farm butter, 87 billion pounds that they sold as whole milk to processing plants and dealers, and 17 billion pounds that they separated on their farms for the sale of cream to processing plants. Somewhat over half of the whole milk was sold by dealers for consumption as fluid milk and cream. The remainder of the whole milk and substantially all of the farm-separated cream was processed into manufactured dairy products. During the last 20 years, more and more farmers have discontinued farm separating of milk and have sold whole milk instead of cream to processing plants. This trend, stimulated by the wartime demand for dairy products, has had the effect of further increasing the market supplies of nonfat milk solids.

4. There is considerable flexibility in the utilization of milk. There are many competing plants in the major dairy areas that are equipped to produce different products. Continuing adjustments in the utilization of milk in the production of the different dairy products together with the nationwide marketing of the products tends to keep market prices of dairy products throughout the Nation in close relationship.

5. There normally is a large seasonal variation in milk production and a relatively constant rate of consumption of milk and most of its products. Substantial quantities of dairy products produced in the spring and summer months of heavy production are stored and placed on the markets in the following winter months of seasonally low production. This seasonal variation in production complicates possible production control and price-support programs.

6. The pricing of milk is regulated by Federal orders in 53 fluid milk markets and by State regulation in a number of other markets. In nonregulated markets milk prices are established by negotiations between producers and dealers. Except as they are influenced by Government price-support operations, market prices of manufactured dairy products are established by the operation of market supply and demand forces. Butter and cheddar cheese are traded on several mercantile exchanges. Fluid milk supplies are produced largely within a few hundred miles of the consuming markets although, with improved transportation facilities, there has been a tendency for these supply areas to broaden. The major producing areas for manufactured dairy products are the midwest and south central regions from which the products flow to the heavily populated consuming markets. Dairy products are manufactured in about 4,000 plants. Large proportions of the supplies are marketed through several hundred assemblers and distributors who perform the services of receiving, assembling, processing, storing, and distributing these products.

7. During the last half century the domestic market has been the principal outlet for dairy products produced in the United States, commercial exports usually have accounted for less than 1 percent of the total supplies. Market prices in the United States recently have been substantially above the prices of dairy products in most of the major foreign markets. The consumption of fluid milk in the United States has increased in recent years at about the same rate as the growth in population.

The consumption of most manufactured dairy products has been maintained or increased. The principal exception is butter. The present dairy price problem is due in large part to the sharp decrease in the consumption of butter during the last decade. Per capita consumption of butter has decreased from a prewar level of about 17 pounds to about 9 pounds per year at the present time.

8. The changes in consumer purchases of milk and its products are small in relation to price changes. This has an important bearing upon effects of different methods of price support on consumption and on the relative costs of the programs.

9. Milk and its products are generally recognized as among the most important foods from a nutritional standpoint. The desirability of encouraging longtime upward trends in consumption and the effects of different methods on such trends may be an important consideration in appraising the possible alternative methods of production control and price support. This consideration may be of particular importance in choosing between production control as a method of maintaining returns to farmers and price-support programs without production control. In this connection also the longtime role of dairying in the Nation's grasslands and soil-conserving program may enter the picture.

CRITERIA FOR APPRAISING DIFFERENT METHODS

The possible alternative methods of controlling production and supporting prices should be considered in the light of several major criteria. These include the effectiveness in accomplishing their objectives, their effects on production, utilization and consumption of milk and its products, accumulation of Government stocks, the cost to the Government and to the population at large, the administrative problems for both the Government and the industry, and the effects on production and marketing practices.

Different methods may differ considerably in their effectiveness. One method of production control, for example, might have only temporary effect if milk production per cow were increased. One support method might be the most practicable one when only small support activity were necessary whereas it might be inadequate if the objective called for extensive operations.

While the production of milk would be influenced much more by the level of support than by the method used, the price support method could greatly influence the utilization of milk and butterfat, the relative quantities consumed in different forms in the commercial markets and the quantities used in school lunch, welfare, and other outlets.

The cost of any program, of course, might be greatly influenced by the level of support in relation to the market conditions at the time. In comparing the relative costs of different methods of accomplishing the same objective, however, it may be advisable to take into account not only the direct Government expenditures but also the cost to the population at large, including consumer expenditures for products that they purchase in the markets as well as the cost to them in taxes to cover Government expenditures. It also may be advisable to take into consideration the differences in consumption of milk and products under the alternative methods.

Another important consideration is whether the method used would result in the accumulation of large Government stocks of relatively perishable products in excess of the quantities that could be used in school lunch, welfare, and other outlets.

Some of the alternative methods of production control or price support would differ greatly in administrative feasibility. All programs involve administrative problems and a method should not be ruled out of consideration merely for that reason. Some programs might be relatively complicated but administratively feasible and enforceable. Other types of programs might be administrative nightmares for both the Government and industry. The relative administrative feasibility of different methods depends considerably upon the performance requirements as a condition of participation, the number of people and companies involved, the incentives for compliance, the administrative organization required, and whether the program can be readily turned on and off as production and marketing conditions change.

SECTION I

METHODS OF CONTROLLING MILK PRODUCTION

Throughout the history of the American dairy industry, a primary determinant of the level of milk production has been the level of relative prices. Quantity restrictions on sales by individual producers to distributors or processors have been imposed in some fluid milk markets but this has been mainly to accomplish certain specific local objectives, such as a more uniform seasonal pattern of supply.

Elements aside from price, however, also affect the level of milk production. Unusually favorable weather, for example, may lead to sharp temporary increases which tend to depress prices. Production technology may make unexpected and sudden advances which result in significant increases in milk supply. The maintenance of support prices above a free-market-equilibrium level tends to keep more resources employed in the production of milk than would otherwise be the case. This maintenance also would tend to expand milk supplies above and beyond those which would result from the other supply-increasing factors. The purpose of this section is to analyze various alternative methods that might be used to limit supplies of milk to the available outlets at an above-equilibrium level of prices.

A general objective of production control measures would be to bring production and consumption into balance at some price level which might be considered fair to both producers and consumers. Some price support action through purchases of surplus commodities would probably need to be continued as a standby program with nearly any production control method. Temporary situations would arise from time to time that could be most efficiently handled in that way. Purchases for relief programs might also be made even though not strictly needed for price support.

No recommendations are made here with respect to the adoption of a particular control method for milk, or as to whether any program of control will be needed. But certain broad conclusions about alternative methods of control may be obvious. Control through some form of milk sales quotas would appear more feasible than control through limitations on cow numbers or use of feed grains.

In addition to specific advantages and disadvantages that can be cited, a method of control which operates on output rather than on resource inputs would lead to more efficient use of resources and would be more equitable as among producers. With output quotas, producers would be able to combine available resources on their individual farms at lower costs and in more efficient ways than if resources like cows or feed grains were restricted. Producers in varied situations would be subject to less discrimination if they happened to have command over more or less of any one kind of resource.

Production control measures for milk need to be considered with reference to timing. If control were urgently needed to adjust production in the next year or so, certain kinds of alternatives would be

open. The wartime measures to expand production were of this nature. Dairy price supports and feed subsidy payments were effective incentives for increasing output both immediately and over a longer period. If ample time were available, then educational measures and various methods providing general assistance in shifting toward more profitable endeavors might be sufficient.

Various methods that have been suggested for dairy-production control fall into four categories:

1. Sales quotas.
2. Cow-number limitations.
3. Feed-grain restrictions.
4. Reconversion assistance.

The first three methods are intended for bringing about short-term downward adjustments and the fourth is intended to give aid in the more basic long-term adjustments of resources.

MILK SALES QUOTAS

Description of method

Milk quotas can take many forms and can be administered in different ways. Basically a milk sales quota simply seeks to establish the producer's fair share of the market by setting a limit on the quantity he can sell during a certain period of time. The plan may be implemented with economic incentives to make the quota financially attractive or with penalties for noncompliance.

Any plan to establish and make effective individual milk sales quotas would have many administrative problems, and would require a large administrative staff.

The key feature in most individual quota plans is that the farmer faces what amounts to a lower price for his surplus production. A much lower return for excess production could bring about contraction of output without removing price and income support from the base production for those in compliance.

Many variants of the sales quota plans might be devised, but the following represent major ones.

1. Quotas with penalties for excess marketings.
2. Quotas with payments for reduction in marketings.
3. Quotas with payments for milk within quota.
4. Quotas transferable with decreasing payments.
5. Quotas with price insurance.
6. Quotas enforced only by legal action.

Previous experience with quotas

Milk sales quotas or base ratings have been used in many fluid milk markets for many years. They have generally been used to even out seasonal production rather than to limit total output. As a matter of fact their effect on total annual output has probably more often been to encourage expansion.

Marketing quotas with penalties on marketings in excess of quotas is the method provided in existing legislation for regulating certain basic commodities—cotton, wheat, rice, peanuts, and tobacco. When supplies of any of these commodities become excessive, quotas on the particular commodity become effective. Acreage allotments are used to determine compliance with quotas. Generally the marketing quota for an individual farm is the quantity produced on the acreage allotment.

There has been no experience with sales quotas for the entire dairy industry. A national marketing quota plan for milk was considered by the Agricultural Adjustment Administration and the dairy industry in 1934 but was not undertaken.

Quotas with penalties for excess marketings

This method would resemble the marketing quota method used for certain basic crops except that quotas would not be tied to cow allotments as crop quotas are to acreage allotments. Such a provision would not seem as feasible for livestock as for crops. Participation would be mandatory although the adoption of any quota plan would probably be conditioned on a referendum in which two-thirds or more of the producers voted in favor of quotas. Milk sales quotas would be established for individual producers which would aggregate a national sales quota that would equal the supply that would clear the market at an announced price support level.

Penalties for sales above quota levels might be set at some percentage of the announced support level on quota milk. Effective control would probably require assessment of penalties concurrently with regular sales periods. One way to handle penalties would be to issue penalty-free quota certificates for quota milk (say monthly). All milk deliveries to processors and dealers accompanied by certificates would be at market prices. Milk without such certificates would be subject to the penalty, which the processors and dealers would be required to deduct from the producer's milk check.

Quotas with payments for reduction in marketings

This method would seek to reduce production to quota levels by payments to farmers, varying according to curtailment within specified limits. Participation would be voluntary. Individual sales quotas might be based on total quantities sold in a base period with payments made for reductions within a percentage range below this base-period level. Payments for reductions within this range would have to be large to be effective and might be made at about the market price per 100 pounds of milk equivalent. Not all producers would find it profitable to participate. The determination of necessary payment rates and ranges would be subject to trial and error before effective control could be established at the desired level.

Quotas with payments for milk within quota

Under this method, producers would be free to produce as much milk as they desired at free-market prices, but they would receive payments only on milk sold within the quota.

This quota plan would have less effect in curtailing production than the quota with payments for reduction in marketings. But, on the other hand, more dairy products would move into consumption at the lower retail prices which would prevail, and a balance between output and consumption might be found just as soon. The use of payments is discussed in more detail in another section of this report.

Quotas transferable with decreasing payments

This variant of the quota plan with payments is based on suggestions recently advanced by Brinegar and Johnson.[1] Quotas would be freely transferable so as to permit flexible adjustment among producers.

[1] George K. Brinegar and Stewart Johnson, On Letting Go of the Bear's Tail, Journal of Farm Economics, February 1954, pp. 30–43.

Government purchases and sales of quotas could be used if necessary to maintain an active market for quotas. They would not be tied to the cows or the farm. Each year the payments would be lowered sufficiently so that the aggregate premium value of the total quotas would be reduced by perhaps 10 percent. Thus at the end of 10 years the payments would end. In this way orderly liquidation presumably would put the industry back on a competitive plane after allowing time for farm adjustments to be made. Quotas would be capitalized only for the specified term of years.

Quotas with price insurance

This method would combine marketing quotas with price insurance indemnities as an incentive for staying within quotas. Commodity prices are not directly insurable on an actuarial basis because they are not predictable risks in terms of any aggregate pattern. But a form of modified price insurance might be possible if the insurance principle were applied to a restricted portion of the potential range in price variability. This might be done in combination with quotas in the following way:

(1) Price changes would be measured from a parity base. This would have the effect of eliminating the fluctuations related to general price movements.

(2) Only that part of the price between stated percentages of parity would be insurable, e. g., between 75 and 90 percent.

(3) Price insurance would be applicable only to the milk in each producer's individual quota.

(4) Premiums would be payable in advance by the producer and the Government jointly on a 50–50 matching basis and would be assessed against all milk and cream marketed at the point of first delivery.

(5) Indemnities would be paid at intervals during the year unless the price rose above the insured level. Indemnity payments would equal the difference between the upper limit (90 percent) and the lower limit insured (75 percent) or the actual price, whichever was the smaller.

This plan of matching insurance coupled with quotas would be a plan for supporting prices and bringing production under control with a degree of self-help, since producers would pay part of the cost. It would be similar to control with direct payments, amounting to half of the difference between the upper limit of support and the actual price or the lower limit whichever was the smaller. But some significant psychological advantages would be gained. All producers would be conscious of participation. They would be aware of the premium deductions made from each milk check and would understand the partnership arrangement. If the market price dropped below 75 percent of parity, say to 65 percent, this part below 75 percent would not be covered by insurance and the Government cost would not increase.

Quotas enforced only by legal action

Under this method individual producers would be prohibited from selling any milk in excess of quota. No payments would be involved. Handlers and processors would be prohibited from receiving nonquota milk. Enforcement would depend on legal action in the form of prosecution of violators. Any production above quota levels would be held back on the farm for use in the farm household or for livestock. The quota quantities would be set at the level calculated to return producers an announced support level. Dairy producers would have the alternative of curtailing production by reducing cow numbers or feeding less per cow, if they did not wish to consume the above quota milk or feed it to livestock.

This method assumes that it would be feasible to return to former milk consumption practices in farm households and to former rates of feeding milk to livestock. In earlier periods a larger percentage of the milk produced was consumed on the farms where it originated. But a number of important changes have taken place with increasing specialization. More milk is now produced by a smaller number of farmers. Between 1940 and 1950 the number of farms reporting milk cows decreased by 21 percent. The average dairy farmer produced about one-third more milk in 1950 than in 1940. Many dairy farmers keep a smaller number of other livestock. Opportunities for farm and home consumption of milk are therefore more limited than in earlier years.

Use of milk on farms where produced has been shrinking as various changes have been taking place over the last 25 years. In 1929–33 about 23 percent of total milk production was consumed on farms where produced. By 1949–53 this had dropped to 15 percent.

Quotas with payments producer financed

The quota plans with payments discussed above would be Treasury financed. But they might conceivably be entirely producer financed and managed under some form of special assessment. This would require additional legal authority. Possibly a national milk-marketing agency could be provided to handle the quotas, assessments, and payments in much the same way as base-rating plans have been used in many fluid-milk markets. A marketing assessment at a specific rate per dollar value of milk equivalent sold would be collected from all producers. These assessments would go into a national pool and would be redistributed to producers in the form of periodic payments in accordance with individual performance in adjusting production or as payments on quota milk. Under this method administrative costs would also be met from the assessment pool.

Effects on production and consumption

The most serious ultimate consequences of any method of production control would be those that would result from the additional rigidities introduced into the usual processes of resource adjustment. Quotas would tend to freeze the existing structure of farm sizes. They would slow down the trends toward more efficient operating units. They would place brakes on the normal interfarm, interarea, and interregional flow, and readjustment of resources. These general effects would become increasingly significant with the passage of time.

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To make any quota plan effective would require an elaborate administrative setup and the solution of many detailed problems related to the establishment and enforcement of the quotas. Given this administrative machinery and adequate financing, quota methods involving payments or penalties could probably be made effective in controlling production to the desired level, although a period of trial and error would doubtless be needed before this could be achieved. Quotas enforced only by legal action might not be workable.

Some significant differences in the effects of different methods on production and consumption are evident, however. Quotas with penalties on excess marketings or with payments for reduction in marketings would tend to be more restrictive and thereby would reduce output and consumption more than the quotas with payments for milk marketed within quotas.

Costs of quota methods

The operation of any method of production control would probably need to be accompanied by price-support purchases and other programs as standby operations to handle temporary emergencies, and to encourage compliance. The costs of these additional operations might at times be substantial.

Precise estimates of costs directly attributable to the several quota methods would have to be related to the assumed levels of price and income support for producers, the degree of production adjustment desired, and related matters.

Administrative costs of establishing producer quotas may be assumed to be substantially the same for all quota plans. Other costs of administration would vary chiefly with differences in measures necessary for compliance and enforcement.

Costs to the Treasury would be least with the method of quotas with penalties for excess sales. In the case of milk, because of variations in production beyond the control of the farmer, this method could show a gain to the Treasury in some years on account of penalties collected.

Costs to the Treasury for quotas enforced by legal action would be mainly for litigation, but would also involve considerable administrative costs.

Under producer-financed programs producers would bear all administrative costs, as well as costs of any payments made to producers. Quotas with price insurance would provide for a sharing of costs by the Government and producers.

Legislative authority

Additional legislation would be needed to provide authority for the various producer sales quota methods, including payments, described in this section.

The necessary legal authority for a national milk marketing agency to perform some of the functions required for stabilizing the national milk market would appear to exist in the Agricultural Marketing Agreement Act of 1937, as amended. But under the existing law the authority does not extend to the regulation of milk production. Additional legislation would be required to permit such an agency to establish quotas, collect assessments, and make payments.

TABLE 3.—*Farms reporting dairy products sold in 1949, by size of herd*

Number of cows in herd	Number of farms	Percentage of total
1 milk cow	179,968	8.9
2 milk cows	214,804	10.6
3 or 4 milk cows	341,618	16.8
5 to 9 milk cows	589,173	29.0
10 to 14 milk cows	303,848	15.0
15 to 19 milk cows	152,155	7.5
20 to 29 milk cows	117,985	5.8
30 to 49 milk cows	46,628	2.3
50 milk cows and over	16,755	.8
No milk cows [1]	68,477	3.3
United States total	2,031,411	100.0

[1] Number of farms with no milk cows on census date, though some products had been sold in preceding year.

Administrative problems

Most of the administrative problems involved in establishing sales quotas would be similar for all the quota plans. There were approximately 2 million farmers who sold dairy products in 1949 according to the census (table 3). The number may be smaller now, as it decreased about one-sixth from 1944 to 1949. Assuming some exemptions or nonparticipation on the part of 1- and 2-cow farms, there would probably be about 1.5 million quotas to establish. This would involve considerable paperwork especially at the outset. However, there is no reason to suppose that this would be an insurmountable task after the experience with crop-marketing quotas and the wartime dairy payments program. A large fund of experience in fluid milksheds in the use of base ratings has shown how to treat the problems involved in dealing with the matter.

The continuous nature of milk production as contrasted with the single annual harvest of crops introduces many additional complications and would multiply the volume of paperwork tremendously. Quotas might have to be broken down to monthly or semimonthly fractions to coincide as closely as possible with the delivery periods represented by milk and cream checks. Seasonal and irregular fluctuations in milk deliveries would present a troublesome problem of reconciliation. Means for dealing with normal seasonal movements could be devised but the irregular fluctuations would present a frequently recurring problem.

The administrative problems related to making payments or collecting penalties would differ. Payments might involve fewer compliance difficulties than penalties. The psychological difference between mandatory compulsion and voluntary compliance might be significant.

In the case of penalties, processing plants and milk receivers could act as collecting agents for the amounts due the Government on excess milk. This would mean accounting for all milk and cream received in penalty-free and penalty-paid categories. Temptation for faulty accounting might arise in some areas. The problem of obtaining compliance on the part of processors might well be more troublesome than checking compliance on the part of producers under a payment plan. Producer-dealers would present an especially difficult problem under this plan.

Under the method of transferable quotas with decreasing payments some additional administrative machinery would be needed to maintain an open market for the transfer of quotas and the annual adjustment of their values. The Government would have to exercise a stabilizing influence by standing ready to buy and sell quotas and perhaps maintain floor and ceiling prices. Difficulty might be experienced in holding to the straight annual depreciation of quota values if times became less prosperous. Pressures would arise for the extension of higher payments. Speculation in quota values would arise unless the Government stood ready to control the market values.

The method of quotas with price insurance would have some special actuarial problems, especially in the initial stages, but in general the administrative problems would be similar to those with other payment programs. The collection of producers' premiums would be an added task, but against this can be offset the psychological advantage of joint participation which is not present when costs are financed entirely by the Government.

Pronounced compliance difficulties would arise at the outset with the method of quotas enforced only by the possibility of legal action through prosecution in the courts. Milk backing up on farms could not be used in many instances except for feeding back to cows. There would not be enough pigs, chickens, and calves on many dairy farms to consume it. The administrative and public relations phases of this method would raise many problems. Wasting milk or even feeding it back to cows probably would arouse at least as much public reaction as plowing under growing crops, sending baby pigs to slaughter, or dumping surplus potatoes. Bootlegging of milk and farm-produced butter and cream would be difficult to control. Enforcement of sales quotas under these conditions would probably begin to break down at once.

Many of these administrative problems associated with various quota methods would be serious, but in the end most of them would be minor compared to the problem referred to earlier of how to make a quota plan flexible enough to keep up with changes in farming. Dairy farmers are constantly faced with cost reduction opportunities based on new techniques and devices. In order to take full advantage of these opportunities farmers need to be free to adjust the use of their individual resources and their production levels. The quota method which contains the most recognition of this situation is the one with transferable quotas and decreasing payments.

COW NUMBER LIMITATIONS

One method that has been proposed for controlling milk production would start at the source and control cow numbers. This would resemble the acreage allotment method used for crops and would have some of the same weaknesses in that yields (milk per cow) would be unrestricted and would tend to increase and offset part or all of the reduction in cow numbers.

This method could be handled either as a culling program, which would require or encourage heavy culling, or as a quota program which would set cow-number allotments for individual producers. In either case heavier-than-normal culling would be required. The program

would center on methods of encouraging or enforcing such rates of culling.

One method of carrying out culling would be a straight compulsory approach in which individual producers would be assigned levels to which numbers would have to be reduced for cow-number allotments and would then be subject to criminal prosecution or other legal action in case of violation. This method can probably be dismissed without further consideration as undesirable and unenforceable even if legal authority were provided.

A more feasible approach would be to make use of individual farm allotments in the form of cow numbers or rates for reducing numbers, and to make premium payments for meeting these allotments. The rate of reduction would necessarily have to vary among States and areas.

A culling program could also be attempted through a general cow-purchase program under which the Government would buy all the cows normally culled as well as all additional ones. The price of cows would have to be set high enough to induce the desired level of culling. This would place the Government in a situation involving financing and disposal problems for cattle.

Previous experience

A national cow-culling program was given serious consideration in 1934, but widespread drought brought about a significant reduction in cow numbers and in milk production. No plan of this type has ever been put into action in the United States.

Effect on milk production

To obtain a reduction of 5 percent in milk production probably would require culling annually about 2 million more head than normal. This would increase by nearly one-half the normal culling rate of 20–25 percent but it would seem to be necessary, since the cows removed would be the lower producers. Furthermore, serious doubt exists as to whether the reduction in output would be more than temporary. Released feed and improved management would soon increase the productivity of the remaining cows. Most of the longer term effects would tend toward increased milk output per cow. Moreover, in a program with monetary incentives to encourage culling there would be a strong tendency after the first year to save more calves and heifers to sell for culling premiums. Extra heifers could be milked part of the year and then sold.

Some of these problems would be minimized if the program were set up on a cow-allotment basis, but the forces tending toward higher output per cow would still exist. All in all, it seems doubtful whether this method would be very effective in reducing milk production, except, perhaps, in the initial year.

Administrative problems and costs

The most serious immediate administrative problems would arise in setting individual culling quotas or cow number allotments, especially as between dairymen in the same community who have different sized herds or who have followed different policies with regard to replacement or herd expansion. Records of past culling or cow numbers would be sketchy and difficult to prove for most individual producers. Area culling rates could probably be established on the basis of

historical estimates, but individual rates or allotments would be subject to a degree of judgment not found in any other allotment program which has been applied in the United States. A serious problem in any culling program would be to define a cull cow. Presumably only cows going to slaughter would be eligible. But this would mean that the many farmers who normally sell replacement cows to other dairymen would get no premium for so doing and would have little visible direct incentive for reducing numbers.

The administration of such a program would need to recognize the fact that producers' problems and reactions would vary with size of herd and with other factors such as the stage of development of the herd. Farmers having less than 5 cows might be less interested in the program as compared with larger dairymen, and would also find it more difficult to increase culling by a fixed percentage. To some extent this could be handled by allowing the rate of additional culling to vary within a range of perhaps 10–30 percent.

As far as the current situation is concerned the number of heifers being raised is now high relative to cow numbers. A program started in the near future would need to recognize this and might need to include heavier culling of heifers as well as cows.

Another problem would be the effect of heavier culling on cattle prices, particularly for the lower grades. Additional culling at the rates necessary to make the program effective would mean a substantial increase in slaughter cattle, possibly 2 million head per year. This would have a serious depressing effect on cattle prices unless offset by some other means.

The costs of such a program are difficult to estimate since we have no experience to indicate how many cows would actually be culled with specific payments or what payments would be required to induce dairy farmers to reach a definite goal. Presumably, a farmer would become interested in culling more heavily if the payment for doing so were large enough so that his net income would be at least as much with the program as without it. If we assume that about 5 percent less milk would be needed to balance production with demand and that this could be accomplished by culling 2 million more cows than normal, it is possible that farmers might do this for an average payment of $100 per cow or a total of $200 million annually.

If the program were handled on a cow-allotment basis the extent of culling needed and the cost would be about the same, at least for the initial year. In later years either method would probably cost more and be less effective.

In any case, in view of the probable low effectiveness of the program in controlling milk production for more than 1 year it seems likely that its cost would be excessive relative to its accomplishment.

Legal authority

At present legal authority exists to buy dairy cows on a wide scale under a surplus removal program. Section 32 funds could be used for this purpose. Present legislation does not provide authority for cow allotments or for payments to meet allotments.

DISEASE CONTROL AND ERADICATION

Disease control and eradication programs, particularly for brucellosis, should be a part of any dairy program. A broad program to eliminate brucellosis would result temporarily in a reduction in cow numbers. Some idea of the scope of the brucellosis problem can be seen in the fact that roughly 3 percent of the cattle tested in recent years have been reactors, that is, had the disease. If this percentage is applicable to all dairy cows, then the present number of dairy cow reactors in the United States would be about 750,000. With a 5-year program and allowing for some new cases during the period, an annual removal of 200,000 cows might eliminate the infected animals. This would be 10 percent of the estimated 2 million extra cows, which, as pointed out above, would need to be culled annually to bring about an immediate 5-percent reduction in milk production. This reduction probably would be temporary as with other programs involving limitations on cow numbers, and after a few years productivity of dairy cows would be greater than before.

Brucellosis can spread from cattle to humans. For this reason there is need from a public-health standpoint to eliminate the disease, over and above the direct effects in dairy herds. Furthermore, experience in some States of the United States and in certain foreign countries has shown that brucellosis can be eliminated if the will to do so exists. Thus any program for expanded culling of dairy cattle probably should make maximum use of brucellosis control as a means which would receive strong support from the public and perhaps also from dairy farmers, particularly if indemnity payments were adjusted more closely in line with milk-cow values. Under the present program the maximum Federal indemnity payments are $25 per grade cow and $50 per purebred cow. In some States additional payments from State funds are also made.

The present program of brucellosis control is cooperative between the Federal and State Governments. Nearly all of the major dairy States now have comprehensive programs which include calf vaccination, testing of mature animals, and slaughter of reactors. In 1953–54 well over one-half of the reactors were slaughtered. This comprehensive approach could be speeded up considerably with additional funds and personnel. And, of course, the opportunity exists to expand current programs in the less important dairy States, some of which have large numbers of beef cattle which are also susceptible to the disease.

Disease control and eradication need not be limited, of course, to brucellosis. Bovine tuberculosis has been an important problem in the past, but has been largely eliminated by a long-time effort. Mastitis is still a major disease of dairy cows and one that needs continuing attention. Control of mastitis, however, does not seem to require any substantial increase in culling rates and does not seem to offer an important avenue for limiting cow numbers.

FEED-GRAIN RESTRICTIONS

Livestock farming is so closely tied to feed grain supplies that proposals to control livestock production often are based on some method of regulating the use of feed-grain supplies. The main possibilities along this line are presented below.

Feed-grain storage method

The use of feed-grain storage to influence feed prices and thus livestock production has frequently been proposed as a method of control. Since fluctuations in available feed-grain supplies and prices affect livestock output, it has been suggested that milk production could be controlled by moving feed supplies in or out of Government storage through purchase and sales operations which would affect prices. The mechanism for doing this job is already available in the Commodity Credit Corporation. Additional authority might have to be provided but the main difference between this and usual feed-storage operations of the CCC would be the new objective of regulating livestock production rather than one of stabilizing grain supplies and prices.

Previous experience.—The United States has had a feed-grain storage program ever since the Commodity Credit Corporation was organized in 1933. There is no lack of practical experience in the general administration of feed-grain storage programs. But the primary objective of such programs has been to support feed-grain prices and to stabilize feed supplies against variations in feed production due to good and bad weather.

Accumulations of feed grains in storage at the beginning of World War II were very useful in helping bring about the large expansion in livestock production needed for war purposes.

Effect on production.—The effect of a feed-grain storage program on livestock production can be estimated partly from historical experience. Analysis of past relationships between feed-grain supplies, prices, and aggregate livestock production shows that they are generally correlated. Total livestock output is affected by fluctuations in market supplies and prices of feed grains as well as by other major influences. But different classes of livestock respond differently. Hog production shows most response. Beef-cattle production and milk production show less response, because they depend so heavily on forage.[2] Most of the relationship between feed supplies and total livestock output is explained by the fluctuations in hog output. The conclusion emerges that a feed-grain storage program would not significantly reduce milk production.

This conclusion does not imply that a feed-grain storage program operated with the primary objective of stabilizing feed-grain supplies against weather variations is not desirable for dairy producers as well as for other livestock producers. By reducing variability in feed supplies and removing uncertainties about future prices of feeds, more efficient long run farm plans can be made and farming costs lowered. The probable effect, however, of thus increasing efficiency would be to increase milk output.

Administrative problems and cost.—As indicated above, the general administrative problems of operating storage programs have been worked out over the last 20 years and offer no particular obstacle.

[2] See discussion on this point by Geoffrey S. Shepherd in his Agricultural Price and Income Policy, Iowa State College, 1952, pp. 95–117.

The difference in objective in a feed-grain storage program designed to control livestock output would bring in some additional problems, however. Heretofore, production of livestock has offered a fairly open outlet for accumulated feed grains during periods of increasing demand for food. In other words, increasing livestock production has provided at times a use for expanding feed-grain production. If this outlet were no longer to be available, the pressure from mounting stocks of feed grains in storage would be likely to increase, which in turn might require more crop controls. The primary difficulty with control through feed grains is that they cannot be neatly partitioned into parts that go to each class of livestock. Any feed-grain storage program would influence all classes of livestock, and especially hogs.

Another problem would result from the fact that a large share of the feed grain produced is fed on the farms where grown and does not enter trade channels. It would obviously be very difficult through this program to exercise control over livestock production based on home-grown grain except as higher feed prices resulting from the program might encourage more of such grain to go into storage.

The costs of this proposal are difficult to estimate, but since the effectiveness of the program is doubtful, it seems clear that costs would be high relative to accomplishments.

Feed-grain tax method

Another more selective method of checking the use of dairy feed grains would be to place a tax on feed grains fed to milk cows. This could be imposed on all commercial dairy formula feeds and could perhaps be levied also on other feed grains fed to milk cows, including home-raised grains. To be effective the tax would have to be a substantial one, say 10 to 15 percent.

Previous experience.—Experience with selective taxes of this kind on dairy feeds is lacking. Something of the effect may be deduced from the effect of changes in feed prices.

Effect on production.—The directional effect of this method on milk production would be similar to the effect of an ordinary increase in feed-grain prices insofar as the method is workable. A significant difference would arise from the fact of selectivity. Feed grains available for other livestock would not be taxed and there would doubtless be a considerable substitution even of formula feeds. Furthermore, forage would no doubt be substituted for grain to an increasing degree. The accuracy of assessment on home-raised feed grains fed to milk cows may be open to question also. The net effect on production would be considerably less than would follow with a comparable general increase in feed-grain prices.

Administrative problems and costs.—Regional inequities would be apparent in this proposal also. But the principal difficulty in this method would be a general feeling that a tax on feed is an unjust tax, just as consumers feel that a tax on food is unwarranted. With this basic feeling, with regional inequities, with difficulties of assessment and collection of tax on home-produced grain—the enforcement problems would mount rapidly.

The income effect to the average dairyman would be adverse both from the tax itself and from the enforced downward adjustment of output if the program were successful in reducing production.

In view of the very doubtful effectiveness of the program, it seems clear that its cost would be high relative to its accomplishments.

Feed-grain rationing

An alternative method of attempting to control the flow of feed grains to milk production on a selective basis would be to ration dairy formula feeds and other feeds purchased by dairy producers for use in milk production. Feeds for other livestock would be left free of control.

Dairy rations for individual dairy farms could be based on records of past purchases of feed grains, perhaps supported by milk sales records.

Previous experience.—Experience in rationing feed grains in the United States appears to be limited mainly to wartime situations of feed shortages. The problem of allocating a short supply is a rather different one, but has some parallels. In the United States rationing of mixed feeds has been necessary only on an informal basis and on a few occasions. During and immediately after World War II some feed dealers who received insufficient supplies divided them among their regular customers as equitably as they could.

England and other European countries have had much more experience in rationing feed grains. It should be noted that in England more of the feed is imported and authorities were able to control a larger part of the supply. Rationing was assisted by other elements of pricing policy so that differential rationing was feasible.

Effect on production.—The effect on milk production of rationing feed grains would vary greatly in different regions in accordance with the proportion of feed grains and roughage feeds grown and purchased. In some areas in whch much feed is produced, the method would be quite ineffective. The importance of these regional differences is indicated by the following figures which show the percentage that homegrown grain is of total concentrates fed to dairy cows in 1953.[3]

	Percent
North Atlantic	27. 2
East North Central	74. 0
West North Central	70. 1
South Atlantic	32. 0
South Central	29. 8
West	16. 5
United States	50. 8

In many areas in the Northeast and other feed-deficit sections a considerable measure of control could be established. No feasible way seems open of compelling producers who raise their own feed to refrain from feeding it to milk cows, so long as the milk could be profitably disposed of.

Administrative problems and costs.—The obvious regional and area inequities that would arise would constitute a major problem. Even assuming that rigid rationing would bring about a measurable reduction in the national milk output, producer reaction could be expected against a method that would so clearly penalize producers in established feed-deficit milkshed areas.

Considering the numerous difficulties in this proposal and its doubtful effectiveness, no estimates of cost have been attempted. Its cost certainly would be high in relation to its accomplishment.

[3] John L. Wilson and Herbert M. Walters, Rations Fed to Milk Cows, 1953, AMS, USDA, January 1954.

RECONVERSION ASSISTANCE METHODS

Description of method

Most methods of production control are designed to deal with an emergency surplus situation. They are necessarily short-run methods to reduce surpluses and they may not do much about the basic maladjustment of resources. Indeed, they may tend to freeze uneconomic combinations of resources and prolong the time required for needed fundamental changes in farm organization.

Many dairymen in all areas need to adjust toward more efficient farm units, which in most cases means farm units of somewhat larger scale. Others need to shift from milk to other lines of farm production, although in some areas, as in the South, the shift may be toward dairying. Still others need to look outside agriculture for their future. The first two groups will benefit from existing extension, conservation, and improvement programs in farm management and land use. The last group receives relatively little assistance from farm programs as presently operated.

This group includes many whose potential abilities are inadequately employed on the available farms. For these people, more emphasis is needed on educational facilities and on various kinds of on-the-job training programs. This would call for increased support for the regular public-school system and for special emphasis on vocational training and guidance for nonfarm opportunities. More than half the young people growing up on farms will eventually find nonfarm occupations and therefore can make effective use of appropriate training.

Emphasis on more efficient farm planning means that many farms will grow larger by purchase, rental, or intensification. Attention usually centers on the farm part of this process of enlargement and overlooks the equally important adjustment made by those who leave farming. They are not necessarily the most disadvantaged individuals. Frequently they are people who are good farmers, but many can locate even better nonfarm alternatives, or they could if the proper institutional mechanisms were provided to help them make this transition more readily. Wartime farm enlargement and expansion of production came about at the same time that farmers and other members of the farm-labor force were called into the armed services and into war industries in large numbers.

Special assistance methods to promote desirable long-term reconversion might include the following:

1. Conversion payments for adjusting scale of operations and practices leading to lower cost and more efficient operations.
2. Provisions for supervised intermediate and longer term credit (where existing sources are not adequate) to finance necessary capital investment associated with adjusting to more efficient organizations.
3. Problem area method of focusing on acute adjustment problems.
4. Assistance grants for education and retraining programs for farmers who seek urban occupations.

Previous experience

The experience of the Farmers' Home Administration in extending supervised credit to low-income farmers to readjust their farm and home plans is very much to the point. Similarly, the currently

reoriented Extension Service program to approach farm adjustments on the farm unit basis is in line with what is needed.

Effect on production and consumption

The effect of fundamental readjustments of the kind indicated would be to improve the efficiency with which farm resources are used. Lower cost production could also mean eventually profitable production even at somewhat lower prices to consumers. Furthermore, both production and consumption of farm products might be larger.

It must be recognized that basic readjustments in farm organization take time and results do not show up immediately. Moreover, there is some possibility that speeding up progress in efficiency by these methods would increase production and aggravate the surplus problem at least temporarily. Most ways of increasing efficiency involve increasing inputs of capital and other resources and increasing output on the individual farm. Unless labor resources are withdrawn from farming simultaneously, per capita incomes of farm people are likely to be reduced. It is therefore very important to provide farm people with full access to nonfarm job opportunities. Only if this access if freely available will increased overall efficiency be realized.

Costs of methods

The costs involved in reconversion assistance would depend chiefly on how rapidly it was desired to push forward with various methods. Funds already available for conservation payments might be reallocated for practices designed especially to assist reconversion in some areas.

Provision for extension of supervised credit might involve mainly adtional capital funds for existing or newly authorized credit agencies.

Legislative authority

Legislative authority would be necessary to provide for some of the suggested methods of reconversion. Benefit payments could be made for certain steps under present authorization, but additional authority would be needed to cover payments for desirable shifts to lower costs and to improve the general organization.

New authority would be needed to cover grants for educational assistance although these might be similar to veterans' grants for the same purpose.

To provide needed intermediate credit facilities and supervised credit, new legislation would also be required.

Administrative problems

A variety of administrative problems would arise in the many different plans that might be involved here. One problem is that of refocusing existing educational and action programs. The agricultural extension service is already embarked on one phase of this problem.

Supervised credit has many administrative problems. Some streamlining would be necessary to keep costs within reasonable bounds and still attain effective reconversion progress.

SECTION II

METHODS OF SUPPORTING RETURNS TO FARMERS FOR MILK AND BUTTERFAT

In addition to possible programs to limit production or marketings discussed in a previous section of this report, there are two general methods that could be used more directly to support returns to farmers from sales of milk and butterfat at a level above the returns that they would receive under free market supply and demand conditions. These two general avenues of approach, usually referred to as the purchase and payment methods, are as follows:

1. Market prices of dairy products could be maintained at a level that would reflect the support level to farmers for milk and butterfat by the purchase and removal from the market of that part of the supply that could not be sold in commercial outlets at such support-price level.

2. Market prices of dairy products could be permitted to adjust to whatever level would move the total supply through commercial outlets, with farmers receiving their returns from sales of milk and butterfat partly from the market prices and partly in payments directly or through processors and dealers from the agency administering the program.

There are several possible modifications of these two principal methods of supporting unit returns to farmers for milk and butterfat. Also there are several possible combinations of these methods that might be used. In order to facilitate an appraisal of each method, however, it was assumed, except as otherwise specified, that the support would be carried out wholly by the particular method under consideration.

DAIRY PRODUCTS PURCHASE METHOD

Description of method

Prices to producers for milk and butterfat could continue to be supported by CCC purchases of manufactured dairy products at prices that would reflect the announced level of price support to producers for milk and butterfat. Under the type of program now in effect, the Secretary announces at the beginning of the marketing year the prices at which Commodity Credit Corporation will stand ready to buy all quantities of butter, Cheddar cheese, and nonfat dry milk solids offered in carlots by manufacturers and handlers. The products must meet certain quality specifications and must be offered subject to other terms and conditions set forth in announcements. The purchase prices are based on the recent relationships between market prices of the products and the average prices paid to farmers for manufacturing milk, and for butterfat in farm-separated cream.

The products purchased are placed in appropriate storage, such as cold storage for butter, cooler storage for cheese, and dry storage for nonfat dry milk solids, in accordance with commercial practice. The

purchases are confined to those dairy products that can be stored for at least one season without serious impairment of quality, that can be distributed and used advantageously in noncommercial outlets, and that do not involve serious labeling or other problems on sale back to the commercial market.

Dairy products acquired under the support program are offered for sale back to the commercial market at prices moderately above the current purchase prices. This sales price policy aims to encourage normal commercial storage of supplies from the spring and summer heavy producing months to the winter period of seasonally low production. Whenever the supplies acquired under the program exceed the quantities that likely can be returned to the markets, the products are made available for other uses. They are offered for sale for commercial export at world prices and for restricted commercial uses that do not interfere with the price support program. The products also are made available by donation for use in the school-lunch program, for welfare use both in the United States and in other countries, and for additional use by the military agencies and Veterans' Administration under conditions authorized by law.

Legislative authority

The purchase method of supporting prices to producers for milk and butterfat is authorized by the Agricultural Act of 1949 as amended. Section 201 of the amended act provides that such price support shall be provided through loans on, or purchases of, milk and the products of milk and butterfat.

Previous experience

Dairy products were purchased from time to time to support prices to producers for milk and butterfat from mid-1933 until the early war years. The Department did not announce specific price-support levels and did not announce the prices at which it would buy dairy products. The purchases generally were made on the basis of competitive bids and the quantities purchased usually did not exceed the quantities that could be used for school lunch and welfare purposes. The largest prewar effort to support a certain level of prices for an extended period was in the 1938–39 marketing year when 114 million pounds of butter were purchased. Nearly all of the dairy products purchased under the prewar price-support programs were distributed to unemployed and other needy persons in public relief programs and to school-lunch programs.

Commitments to support prices to producers for milk and butterfat were made during World War II in order to encourage needed production. Wartime demands, however, kept market prices at price-ceiling levels and no price-support purchases were necessary. Large quantities of dairy products were purchased by the Armed Forces and the Department of Agriculture during and immediately after World War II. All of these purchases were for military, lend-lease and postwar foreign assistance programs rather than for price-support purposes.

About 211 million pounds of nonfat dry milk solids were purchased in 1947 to strengthen sagging prices of manufacturing milk. All of it was sold to other agencies for use in occupied areas and other foreign relief. No price-support actions were necessary in 1948.

The postwar programs to support prices to producers for milk and butterfat by market purchases of butter, Cheddar cheese and nonfat dry milk solids have been in effect since early 1949. The announced price-support levels from early 1949 through March 1954 ranged from 79 to 90 percent of the parity equivalent price of manufacturing milk and from 86 to 90 percent of the parity price of butterfat in farm-separated cream. (See table 4.)

Price-support purchases of dairy products were equivalent to about 2.5 percent of the total milk supply both in 1949 and during the period January 1950 through March 1951 when support operations were shifted to a marketing-year basis. Only small purchases were necessary in 1951–52 and in the first 7 months of the 1952–53 marketing year. Meanwhile about half of the butter and a substantial quantity of the cheese acquired under these programs were sold back to the market. Through these sales to the domestic market, the use of supplies in school-lunch and domestic welfare programs, and donations or sales at reduced prices for foreign welfare uses, CCC sold or donated all of the butter and cheese and most of the nonfat dry milk solids acquired in these support operations. In October 1952 CCC's inventory of dairy products was down to 31 million pounds of nonfat dry milk solids.

TABLE 4.—*Comparison of announced support prices and United States average market prices paid to producers for manufacturing milk and butterfat in farm-separated cream*

Support period	Support level		Market price	Market above (+) or below (−) support
	Percent of parity [1]	Support price		
	Manufacturing milk (dollars per hundredweight)			
January to December 1949	90	3.14	3.14	0
January 1950 to March 1951	79	3.07	3.35	+.28
April 1951 to March 1952	87	3.60	3.97	+.37
April 1952 to March 1953	90	3.85	4.00	+.15
April 1953 to March 1954	90	3.74	3.46	−.28
April 1954 to March 1955	75	3.15	[2] 3.14	−.01
	Butterfat (cents per pound)			
January to December 1949	90	58.5	62.1	+3.6
January 1950 to March 1951	86	60.0	64.0	+4.0
April 1951 to March 1952	90	67.6	74.1	+6.5
April 1952 to March 1953	90	69.2	71.5	+2.3
April 1953 to March 1954	90	67.3	65.2	−2.1
April 1954 to March 1955	75	56.2	[3] 56.3	+.1

[1] Percent of parity equivalent price of manufacturing milk and parity price of butterfat.
[2] April to November average adjusted to 3.95 percent butterfat content basis.
[3] April to November average.

During the last 5 months of the 1952–53 marketing year, CCC purchased substantial quantities of dairy products. Some of these products had been produced in the preceding months of seasonally large production and placed in storage by manufacturers or handlers. Total price-support purchases were equivalent to about 3.5 percent of the total farm marketings of milk and butterfat during that marketing year.

An increase in milk production resulted in an increase in price support purchases of dairy products in the 1953–54 marketing year when such purchases were equivalent to about 11 percent of the total farm marketings of milk and butterfat. Utilization of dairy products did not keep pace with the increase in acquisitions under the 1952–53 and 1953–54 support programs. CCC inventories accumulated, and on March 31, 1954, CCC's inventory of butter, cheese, and nonfat dry-milk solids was equivalent to approximately 11 percent of 1 year's farm marketings of milk and butterfat.[1]

The support level for the 1954–55 April–March marketing year was announced as 75 percent of the parity equivalent price of manufacturing milk and 75 percent of parity for butterfat. Purchases of dairy products from April through November were equivalent to about 5 billion pounds of milk, substantially less than a year earlier, and 4 percent of the probable total milk production during the 12-month marketing year. The percentage will be raised by any additional purchases during the remainder of the marketing year.

The disposition of CCC stocks of dairy products was stepped up following the enactment of legislative authority for CCC to bear repackaging and certain transportation costs of dairy products donated by CCC for welfare uses. The quantities requested by welfare agencies, especially for foreign welfare use, increased sharply. Also, CCC stocks were made available by donation for increasing consumption by military personnel as authorized by the Agricultural Act of 1954.

The CCC inventory of nonfat dry-milk solids was sharply reduced in 1954 by the sale of a large quantity for use in animal and poultry mixed feed.

The CCC inventory of dairy products on December 1, 1954, was equivalent to about 9 billion pounds of milk or 8.5 percent of annual farm marketings of milk and its products. This figure does not include sizable quantities then being repackaged or processed for scheduled delivery to welfare agencies through March 1955.

Effect of purchases on prices

For its price-support effects, the purchase method relies upon removing from the markets all of the supplies produced in excess of consumption and commercial exports at prices corresponding to the support level. All of the milk and butterfat produced in excess of the volumes that can be marketed commercially in the forms of milk and its products tends to be used in the production of the products purchased under the support program. Therefore, purchases of those products support prices to producers for milk and butterfat in all uses.

Prices to farmers for milk and butterfat can be effectively supported by purchases of dairy products. A large proportion of the total quantity of milk and butterfat used in manufacturing dairy products is used in the production of those types of products that it is practicable to purchase, store and distribute under the support programs. Those products are widely produced and their markets are nationwide. The purchase and removal of supplies from the markets maintain market prices on a nationwide basis. The prevailing practice throughout the dairy industry is to pay producers for milk and butterfat on the basis of market prices of the manufactured dairy products. This practice

[1] These quantities exclude 5 million pounds of butter and 83 million pounds of cheese purchased in March and immediately contracted for sale back to the sellers in April 1954.

is substantially the same in periods when market prices are maintained by CCC purchases of dairy products as when such a support program is not in operation. Competition is equally effective in keeping farm prices of milk and butterfat in line with market prices of dairy products when support programs are in operation and when they are not in operation. CCC purchases of dairy products under a price support program do not substantially alter competition within the dairy industry or change the processing and marketing costs or margins.

Purchases of dairy products under a support program tend to support prices of milk sold for consumption as fluid milk as well as prices of milk used for manufactured dairy products. Fluid milk prices in most milk markets are related to prices of dairy products or manufacturing milk. Also, milk supplies in excess of consumption as fluid milk are processed into dairy products.

Operation of a support program by the purchase method involves the determination and announcement at the beginning of the marketing year of the prices at which CCC will buy dairy products during the year. The recent trends in margins or relationships between the United States average prices paid producers by processors for manufacturing milk and for butterfat in farm-separated cream and the prevailing market prices of the products provide a basis for estimating the purchase prices of dairy products that will result in United States average prices to producers equal to the support prices. An increase in the processing [and marketing] costs [or margins may make it necessary to raise the CCC purchase prices during the marketing year if the intended support level is to be fully accomplished.

The United States average prices to producers for manufacturing milk and butterfat have equaled or exceeded the announced support levels during most of the period since early 1949. (See table 4.) Producer prices averaged substantially above the support levels during parts of the period when market demand raised prices of dairy products above the CCC buying prices. Prices to producers for both milk and butterfat averaged below the support level in the 1953–54 marketing year. The widened processing and marketing margins were taken into account in determining the purchase prices for dairy products in the 1954–55 marketing year, and, with minor increases in purchase prices of cheese and nonfat dry milk solids in midsummer, the CCC purchase operations resulted in average prices to producers for manufacturing milk and butterfat substantially equal to the announced support level in the April–November period.

In measuring the effectiveness of program operations in supporting prices to producers, it is advisable to recognize that the practicable objective of any dairy support program is to support the general level of prices to producers for milk and butterfat. The program does not guarantee that every producer will receive the announced support price. One reason for this is that there normally are wide ranges in prices paid to producers for milk and butterfat. For example, the United States average price to farmers for butterfat in farm-separated cream in October 1954 was 56.9 cents per pound. The reported State average prices, however, ranged from 43 to 63 cents per pound. This is about the usual range. The wide ranges in prices paid to producers for milk and butterfat are associated with differences in location, use, quality, competition, and volumes and efficiencies of

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plant operations. Support programs do not change these conditions. Prices received by individual farmers bear substantially the same relationships to the national average prices, regardless of whether support programs are in effect. Accordingly, the price-support objectives of purchase programs are being accomplished if the United States average returns to producers for manufacturing milk and butterfat substantially equal or exceed the announced support level.

One of the problems in supporting producer prices by the purchase method is the determination of the relative purchase prices of the different dairy products. Farm prices of butterfat are based almost entirely upon the market prices of butter. Prices paid for milk which is separated in plants for the manufacture of butter from the cream, and nonfat dry milk from the skim milk, are based on the prices of both of those products. Prices of milk for making cheese are based on market prices of that product. The CCC purchase prices of the products must be in such relationship to each other as will encourage balanced production in the light of market demands and outlets for products acquired under support programs. Present legislative authority permits administrative determination of the products to be purchased as well as the purchase prices on the basis of developments in market conditions and outlets for acquired supplies.

Price-support operations by the purchase method have a stabilizing influence on market prices. The purchases place a floor under prices. Meanwhile, the availability of acquired stocks for sale back to the market tends to prevent more than a moderate rise in market prices so long as CCC has an inventory of such products.

Effect on consumption

The purchase method of price support maintains market prices of milk and its products at levels corresponding to the support level of prices to producers. Therefore, when supplies exceed demand at prices corresponding to the support prices, the program restricts consumption of milk and its products in regular channels of trade to those quantities that consumers are able and willing to buy at prices corresponding to the support level. The distribution of products acquired under the support program, however, for school lunch and welfare uses and for increased consumption by military personnel results in the consumption of at least part of the supplies removed from the markets under the program.

Outlets for price support stocks

The quantity of dairy products that can be used in the available school lunch, welfare, and other outlets is one of the important factors that must be taken into account in determining the level of prices that can be supported by purchases of dairy products without accumulating unduly large stocks. It is necessary, therefore, to consider the possible outlets for such products in appraising the purchase method of price support.

The utilization of dairy products acquired under support programs is the major problem involved in the purchase method. The purchase of a small percentage of the total milk supply in the form of manufactured dairy products involves a substantial quantity in relation to the available outlets. For example, 1 billion pounds of milk, which is about 1 percent of the total annual milk supply marketed by

farmers in all forms, will make 50 million pounds of butter and 80 million pounds of nonfat dry milk solids. Another billion pounds, or 1 percent, will make 100 million pounds of cheese. A program that requires the removal from the markets of as much as 10 percent of the total milk supply in the form of dairy products involves major problems of utilization of the products and accumulation of Government stocks.

Dairy products normally are stored for one season only. Substantial proportions of the products produced in the spring and summer months, when milk production is seasonally high, normally are stored and placed on the markets during the subsequent autumn and winter months of seasonally low production. These stocks are not carried over into the second storage year because of the quality risk as well as the price risk. Dairy products acquired under price-support programs have been stored well into the second year without serious loss of quality. It is generally believed, however, that the quality risk is so great that it would not be advisable to undertake to operate price-support programs on a basis that would require carrying dairy products in storage more than 2 years from the time of production to the time of utilization. The relatively short storable life of dairy products limits the possibility of operating a dairy price support program on the basis of the ever-normal granary principle of storing supplies in years of large production and carrying reserve supplies against the possibility of a serious drought or other emergency period.

It has been suggested that CCC might rotate its stocks of dairy products by selling them back to the market and replacing them by purchasing equal quantities from current production in order to carry a larger inventory and yet protect its quality. The feasibility of such a plan is doubtful. It would be necessary to offer the CCC stocks for sale at prices substantially below the prevailing level of market prices to induce the trade to distribute CCC storage stocks instead of currently produced products in their established trade outlets.

The cost to CCC of rotating its stocks in this manner would be considerable. The sales and purchases to rotate inventory, in addition to the current price-support purchases, would greatly increase the CCC operations and put CCC further into the business of buying, handling, and selling dairy products. Also, the distribution of large quantities of products that had been in storage for a year or more, in place of currently produced dairy products, might have an unfavorable effect on consumption. These problems would become more serious as the CCC inventory to be rotated increased in proportion to the quantities marketed in commercial outlets.

Sales back to the domestic market

Section 407 of the Agricultural Act of 1949, as amended, authorizes CCC to sell commodities owned by it at any price not prohibited by such section. The restrictions set forth in that section apply to basic commodities and storable nonbasic commodities. The Secretary of Agriculture has administratively determined that dairy products are not storable commodities within the meaning of sections 407 and 408 of the act and, therefore, that they are not subject to the restrictions relating to sales.

It is necessary to recognize, however, that dairy products acquired under price-support operations can be offered for sale back to the domestic market only at such prices and in such manner as will not

impair the current support program. It is apparent that if CCC offered its stocks for sale at prices below its current purchase prices for unrestricted uses, the CCC stocks would largely displace supplies from current production. CCC purchases would increase correspondingly. CCC soon would have to buy substantially all of the current production and sell it back to the trade at a loss. This would convert the purchase method into a modified payment method.

The present practice is to offer the CCC stocks of dairy products for sale to the domestic market at prices moderately above the current purchase prices. This tends to encourage commercial storage. Occasionally some of the supplies acquired in the spring and summer months of seasonally large production can be sold back to the market in the subsequent winter months of seasonally low production. Generally, however, sales back to the market within the marketing year cannot be counted upon as a major outlet because consumer demand or production conditions seldom change quickly.

Crop-growing conditions in the spring and summer months largely determine the supplies of feeds available for feeding during the subsequent winter months. Favorable production conditions in the early part of the dairy marketing year, therefore, usually continue throughout that year. Whenever extensive price-support operations are necessary the production of dairy products during most of the marketing year equals or exceeds those quantities that can be marketed commercially at prices corresponding to the support level.

The feasibility of selling some of the CCC stocks of dairy products at reduced prices for use as ingredients in bakery products or other commercially prepared foods has been considered. A small quantity of CCC butter has been sold under such a program for use as an extender of high-priced, imported cocoa butter in the manufacture of chocolate products. If a program of this kind were to be of much help in reducing CCC price-support purchases or stocks, it would have to be applied on a broad enough basis to bring about a substantial increase in use of dairy products.

Such a program would involve several problems. The quantities of dairy products used in commercially prepared foods varies considerably among companies. It would be difficult to define and enforce equitable provisions concerning the uses of the low-priced CCC stocks that would represent increased uses and not merely displacement of dairy products now acquired from commercial sources and that would prevent the resale of the products to retail or other outlets. The program also would entail difficulties of making the CCC stocks available in small quantities to many users such as the thousands of local bakers. Furthermore, many manufacturers of prepared foods prefer to use either milk or its products in forms other than those acquired by CCC or nonfat dry milk solids from their usual suppliers whose products are particularly suited to their uses.

The animal feed market is a low-value outlet for supplies of nonfat dry milk solids acquired under the price-support program. It appears advisable, however, that these products be used for human food to the fullest possible extent. Furthermore, sales of nonfat dry milk solids for animal feed involve problems of adverse effects on market prices of commercial supplies of dry and condensed skim milk, buttermilk, and whey products, as well as other protein feeds and, therefore, on returns to farmers who produce milk and other commodities from

which such animal feeds are derived. It was feasible to sell a large quantity of CCC-owned nonfat dry milk solids for use in animal and poultry mixed feeds in 1954 only because soybean meal was short in supply and relatively high in price and because the nonfat dry milk solids was sold on condition that it not displace other dairy products normally used.

Export sales

Commercial exports of dairy products produced in the United States historically have amounted to less than 1 percent of total milk production. Large proportions of the dairy products exported during the last 12 years were financed by the United States and were shipped under lend-lease and postwar assistance programs. Commercial exports were largely evaporated milk, dry whole milk, and nonfat dry milk to Central and South American countries, the Philippines, and other scattered markets.

American exporters have encountered problems in developing export markets for dairy products produced in the United States. They have included the generally lower levels of prices of dairy products in the principal foreign importing markets, the low purchasing power of consumers in other potential markets where large populations consume small quantities of dairy products, and problems of trade balances.

Commercial exports of dairy products could continue to be encouraged by offering CCC stocks for sale for export at prices competitive with those of other exporting countries or by making payments to exporters that would enable them to meet their competition. Beginning in early 1954, CCC offered its stocks of butter, Cheddar cheese, and nonfat dry milk solids for sale for commercial export at prices comparable to those in the world market but only small quantities were exported. The legislative authority to accept foreign currency in payment for exported products may help to increase exports of dairy products.

The United Kingdom is the principal importer of dairy products and receives very large percentages of the dairy products entering international trade. The UK market historically has imported dairy products from European and Southern Hemisphere countries and Canada. Other importing countries which take smaller quantities also have imported dairy products from those countries. Dairy production in many of the foreign exporting countries is geared to large export trade in dairy products and they export large percentages of their production. Their export sales prices generally are substantially below the prevailing market prices in the United States and in some cases are below their domestic market prices.

Placing large quantities of dairy products acquired under price-support programs in the United States on export markets at low enough prices to move such large quantities could result in serious effects on foreign prices of dairy products. There are opportunities for developing new markets for dairy products in areas where their consumption is extremely small. In view of the problems of low purchasing power and of merchandising, however, such markets may be effective in long range programs rather than as immediate outlets for large quantities of products acquired under the support programs.

School-lunch and welfare uses

School-lunch and welfare uses generally are the principal outlets for dairy products acquired under support programs. It is estimated that up to 95 million pounds of butter, 75 million pounds of cheese, and 65 million pounds of nonfat dry milk solids can be used yearly in domestic school-lunch and welfare programs, under 1954 conditions, in addition to the dairy products purchased locally with the aid of funds distributed under the National School Lunch Act (see section on distribution programs).

Large quantities of dairy products can be used for welfare purposes in foreign countries. Based on late 1954 indications, with CCC donating the products and bearing the cost of repackaging and transporting them to ports of export as authorized by the Agricultural Act in 1954, it appears that dairy products can be distributed by United States private charitable organizations and international welfare agencies to needy persons abroad at annual rates up to 155 million pounds of butter, 90 million pounds of cheese, and 260 million pounds of nonfat dry milk solids. (See section on distribution programs.)

The above quantities of dairy products would be equivalent to about 66. billion pounds of milk.

Transfers to military agencies and Veterans' Administration

Transfers of dairy products to military agencies and veterans' hospitals will aid in reducing CCC price-support purchases or stocks only if they do not displace their normal purchases in the markets. The amended Agricultural Act of 1949 requires that dairy products acquired under price-support programs shall be made available by donation for increased consumption by military personnel and veterans' hospital patients. It is estimated that such increased use can provide an outlet for up to 30 million pounds of butter and smaller quantities of cheese and nonfat dry milk yearly, or the equivalent of perhaps three-fourths of a billion pounds of milk.

A program to increase the consumption of milk by military personnel and veterans' hospital patients was adopted in late 1954. The purpose of the program is to divert to such use some of the milk that otherwise would be manufactured into dairy products for sale to CCC under the price-support program. CCC will pay part of the cost of the program. While the program has not been in operation long enough to determine the extent to which it is feasible to increase the consumption of milk by military personnel and hospital patients, it is estimated that the quantity by which such consumption could be increased will represent a very small percentage of the total milk supply. As a price-support method, therefore, such a program by itself will not be adequate to carry out a substantial support operation but rather will be feasible as a supplement to some other method.

Effect on imports

By holding domestic market prices of dairy products above prices in foreign markets, price-support purchases of dairy products make the United States market more attractive to foreign supplies. This intensifies the need for import controls to prevent increased imports that would impair the support program. The alternative is larger purchases of dairy products under the support program.

Administrative problems

Dairy products purchase operations can be carried out either by one central office or by several area offices. The volume of work depends a good deal upon the quantities of dairy products that it is necessary to purchase and handle under the program. Based on the experience of recent years, it is estimated that the purchase of dairy products equivalent to 10 percent of the milk supply would include purchases from over 300 companies and would require an estimated 15,000 purchase contracts covering some 35,000 carlots of products.

The purchase method of price support requires management of the CCC inventory as long as it is in the possession of CCC. This requires storage contracts with the operators of several hundred warehouses, periodic reinspections so that any lots beginning to show decline in quality can be disposed of and the inventory thereby maintained in satisfactory condition and, in many instances, arranging for transportation of the products into storage and subsequently to buyers or other recipients. Sales and donations of the products require numerous sales contracts as well as contracts for repackaging large quantities of the products to facilitate their distribution for welfare uses in the United States and in foreign countries.

The purchase, storage, repackaging, and sale or donation of dairy products requires an extensive system of recordkeeping by carlots of products in order to maintain adequate control over the operations. The operations require numerous contract adjustments and claims.

LOANS ON DAIRY PRODUCTS

Description of method

The prices to producers of milk and butterfat could be supported by loans to manufacturers and storers of dairy products at loan rates corresponding to market prices of the products that would reflect the price-support level to producers for manufacturing milk and butterfat. Borrowers would pledge stored dairy products as collateral for the loans. It would be necessary to require the borrowers to pay the storage costs, and probably interest on loans paid off, in order to discourage storers from placing the products under loans merely to transfer storage costs to the Government. The borrowers could pay off the loans and redeem possession of the products whenever the markets could absorb the supplies placed under loans. Thus the borrowers would be assured that they could get back their own products if they could market them most advantageously. The loans would be nonrecourse and could be settled at maturity by surrendering to CCC the products pledged as collateral.

It would be advisable for the loans to be payable at any time upon demand by CCC so that CCC could obtain title to at least part of the supplies under loans if it appeared probable that the markets would be unable to absorb them and it would be advisable to use the supplies in school lunch, welfare, and other outlets. Otherwise, if CCC could not obtain title to the products until the loans matured at the end of the marketing year, the utilization of supplies removed from the market might be delayed and therefore might not be maximized.

A loan program might provide that the borrowers assume responsibility for quality of the products while under loans. The loan rates

would have to cover the normal quality risk during storage in order that the rates would fully reflect the intended support level to producers. The dairy products quality risk is not a serious factor within the normal storage season during which the products would be under loans. A loan program would not solve the more serious problem of quality risk during storage beyond one season.

Legislative authority

The Agricultural Act of 1949 authorizes loans on dairy products as a method of supporting prices to producers for milk and butterfat.

Previous experience

The only experience that the Department has had in loans to manufacturers and handlers of dairy products has been the limited program of nonrecourse loans to manufacturers of whey products and dried buttermilk of animal feed quality in 1954. The purpose of this program was to offset possible loss of animal feed market for commercial supplies of whey products and dried buttermilk that might result from CCC sales of nonfat dry milk solids for use in poultry and animal mixed feed.

Effects on prices and consumption

Since both the loan and purchase methods would maintain market prices at the same level, they would be about equally effective in carrying out a desired support level of prices to farmers for milk and butterfat. Also, they would have about the same effects on total consumption of milk and its products in commercial market outlets.

Administrative problems

The loan method would require about the same administrative machinery as purchases. It would encounter the same problems of utilization of supplies acquired by CCC. Under a loan program, however, it would be more difficult to plan dispositions of the products in school lunch, welfare, and other outlets until CCC acquired supplies either by calling loans or by maturity of the loans. The loan method would involve problems of determining which or whose loans would be called if part of the supplies under loans were to be acquired for use in available outlets.

DIRECT PAYMENTS TO PRODUCERS

Description of method

Unit returns to farmers for milk and butterfat could be supported by direct payments to them on their sales of such products. The market prices of all milk and its products, as well as the prices paid to farmers by processors and handlers for milk and butterfat would be determined mainly by supply and demand influences at the levels at which consumers would buy and consume the available supplies. Federal orders would continue to operate in the fluid milk markets and milk prices in those markets would be adjusted through functioning of the formulas, other provisions or amendments of the orders. It might be necessary to condition payments to producers supplying milk to some markets under Federal orders and State regulations upon amendments of the orders or regulations. CCC would make payments directly to farmers based on the difference

between the announced support prices and the average or prevailing prices received by farmers for milk and butterfat.

An operating problem of a direct-payment program would be the determination of the appropriate rates of payment. It would be advisable to make a uniform rate of payment to producers of butterfat in farm-separated cream since nearly all of it is used in making butter. The rate could be based on the difference between the announced support price for butterfat and the United States average price received by producers as published by the United States Department of Agriculture at the end of each month. It probably would be advisable also to make a uniform rate of payment on all milk sold by farmers in view of the difficulties of determining which milk or what proportion of the milk sold by individual farmers would be used for each purpose.

One basis for determining the payment rate for all milk could be the difference between the support price for manufacturing milk and the United States average price received by producers for such milk on the assumption that prices of milk sold for consumption as fluid milk would adjust to levels related to the prevailing level of prices of manufacturing milk. Other bases of determining or adjusting the payment rates for milk, in accordance with developments in prices to producers in different areas and experience in the program might be found to be more satisfactory. In any event it would not be practicable to vary the payment rate among individual producers. Differences in returns to producers for milk and butterfat associated with differences in location, quality, use, competition, and volumes and efficiencies of plant operations would continue to be governed by those market factors.

It might be advisable to supplement the payment program with a limited purchase program to prevent unduly wide price fluctuations and to facilitate the administration of the payment program. CCC could offer to buy dairy products at prices estimated to approximate the level at which the prospective supplies of milk and its products could be marketed through commercial outlets. Such purchases could be limited to quantities that could be used currently in school lunch, welfare, and similar outlets.

The direct payments to farmers could be made on the quantities of milk and butterfat sold by farmers to processing plants and milk dealers and also on the quantities sold by farmers at retail. It would be advisable to make the payments on a bimonthly or quarterly basis so that the program would be effective in supporting returns to farmers currently. The rates of payment could be determined and announced as soon as the necessary information on prices received by farmers became available. It would be important that the operating details be subject to administrative determination so that they could be best adapted and adjusted to developments in production and marketing conditions and on the basis of experience gained in program operations.

Legislative authority

Present legislation does not authorize the use of direct payments to producers as a method of supporting their returns from sales of milk and butterfat.

Previous experience

From October 1943 through June 1946 Commodity Credit Corporation made direct payments to farmers on milk and butterfat produced and sold by them. The purpose of these payments was to increase the returns to farmers for milk and butterfat in order to encourage needed production without increasing price ceilings on milk and its products. The payment rates were adjusted from time to time on the basis of changes in feed prices and other dairy production conditions. The payments were made on the quantities of milk, butterfat, and butter produced and sold by farmers. Applications for payment generally covered sales during 2- or 3-month periods. The payments were made through county committees, now known as agricultural stabilization and conservation committees, who received and checked the applications and supporting evidence of sales.

Participation in the payment program increased during the life of the program. In 1945 payments were made on about 93 percent of the whole milk and 84 percent of the butterfat in farm-separated cream sold by farmers in the United States. Payments were made to about 2 million farmers.

Effect of direct payments on prices and consumption

Returns to producers for milk and butterfat could be supported at any desired level by use of direct payments to producers, by making the payments equal to the differences between the announced support level and prevailing prices received by producers, since the problem of accumulating and utilizing stocks of dairy products would not be a limiting factor as in the case of the purchase method of support. Payments on milk and butterfat sold by farmers would be a relatively effective method of accomplishing a desired support level, because the payments would be made directly to farmers selling milk and butterfat.

The direct-payment method of price support would permit prices to consumers to adjust to those levels at which they would buy and consume the total available supply. The direct payments, if applied to all milk and butterfat, would not rely for its price support effects upon the diversion of all surplus milk to the production of the products to be removed from the markets under a purchase plan. The use of this method would permit adjustments in market prices of milk and its products in general, which would encourage the consumption of milk and its products in all forms.

Under a program carried out by payments, domestic prices would be less attractive to imports than they would, for the same level of support, under the purchase method. This follows because domestic market prices under a payment program would adjust downward toward foreign market prices whenever support operations were necessary.

Administrative problems

The direct payment method would require a much greater administrative organization and a much larger group that would have to be checked for compliance than either purchases or payments to processors and dealers. There has been some decrease in number of dairy farmers since the end of the wartime dairy production payment program. It is estimated that direct payments to farmers now producing milk and its products for sale would require the receipt,

checking, and payment of about 1½ million applications in each bimonthly, quarterly, or other payment period. The program probably could be administered most satisfactorily through the existing local agricultural stabilization and conservation committees which are administering loan and other support programs. The committees would be in the best position to determine the accuracy of the local farmers' applications for payment and the supporting evidence of their sales of milk and butterfat.

PAYMENTS TO PROCESSORS AND DEALERS

Description of method

Another method of supporting prices to producers for milk and butterfat by payments would be to make payments to processors and dealers on all milk and butterfat in farm-separated cream purchased from farmers and on retail sales by farmers. Wholesale and retail prices of milk and its products would be determined principally by market supply and demand influences at levels at which consumers would buy and consume the total available supply.

In order that processors and dealers could pay to farmers prices for milk and butterfat corresponding to the announced support level, CCC would make payments to the processors and dealers based on the differences between the average or prevailing market prices and those prices that would have reflected the support level of prices to producers. Federal orders would continue to set minimum prices to producers for milk subject to regulation by such orders. It would be necessary, however, to amend some orders so that their pricing formulas, that relate fluid milk prices to market prices of dairy products, would take into account the CCC payments in connection with such products. In those markets under Federal orders or State regulations that do not automatically relate fluid milk prices to market prices of manufactured dairy products, it might be necessary to condition the CCC payments on amendments of such orders or regulations to provide for appropriate adjustments.

A program of payments to processors and dealers would contain problems of determining and announcing rates of payment in a manner that would accomplish its objective and yet would facilitate the pricing and marketing of milk and its product. Accordingly, it would be advisable for the detailed operations to be subject to administrative determination on the basis of market developments and operating experience.

One possible procedure would be to determine and announce the payment rate at the end of the month when the price data became available. In this case many processors who customarily pay farmers by semimonthly delivery periods would be confronted with the question of what price to pay farmers for milk or for butterfat delivered in the first half of the month without knowing what payment rates they would receive from the Government. They could operate on the basis of estimates with appropriate adjustments in their paying prices for the last half of the month, or they could wait and distribute all of the Government payment with the end of the month payment.

An alternative procedure, which would facilitate the orderly pricing and marketing of dairy products, would be to determine and announce at the beginning of each month the payment rates for the month on

the basis of the difference between the support level and either the market prices in the preceding month or estimates of probable market prices in the month to which the payments were to apply. The payment rates could be adjusted from time to time in accordance with developments in market prices as necessary to carry out the announced support program. The advance announcement of payment rates, which would remove uncertainties regarding the size of payments, would tend to maximize the effectiveness of the support program.

The operation of a program of payments to processors and dealers and the orderly pricing and marketing of dairy products under the program would be aided if unduly wide month-to-month fluctuations in market prices were discouraged by a supplementary limited purchase program. As in the case of direct payments to producers, CCC would buy the products at prices estimated to approximate the level of market prices at which the prospective supplies would move through regular trade outlets, and the purchases could be limited to the quantities that could be used in school lunch and other programs, without piling up large inventories.

A somewhat similar payment method could be used under which the payments would be confined to processors on the quantities of milk and butterfat used in manufacturing certain dairy products, or on the quantities of such dairy products that they produced. Market prices of those dairy products would decline to the level at which the total supplies could be sold through the retail and other trade outlets. The payment rates would be based on the differences between the average or prevailing market prices and those prices that would reflect the national average support prices to producers for manufacturing milk and butterfat. Market prices of fluid milk and other dairy products not included in the payment program would remain at levels corresponding to the support prices to producers.

Another modification of the payment method would be the purchase-and-sale-at-a-loss or "wash sale" plan. For example, CCC might offer to buy from a processor all of the butter he produced at one price, and simultaneously sell it back to him at a lower price. Settlement actually would be made by paying the processor the difference between such prices, without taking delivery of the butter. Such a plan would have no advantage over simply making payments on production and would only make the program more complicated.

Legislative authority

Additional legislation would be necessary to authorize payments to processors and dealers as a method of supporting prices to producers for milk and butterfat.

Previous experience

The Commodity Credit Corporation had experience in operating two programs involving payments to processors and handlers of milk and its products during and immediately following World War II. The payments were used to increase returns to farmers for milk and butterfat to encourage needed production without increasing price ceilings on milk and its products. One of these operations was the cheese subsidy program. CCC offered to purchase from manufacturers all of the Cheddar cheese produced by them at a specified

price, simultaneously sell it back to them at a lower price, and pay to them the difference between the purchase and sale price.[2]

CCC also made payments to fluid-milk dealers in several markets during and immediately after World War II. CCC offered to buy milk from the dealers at certain prices, simultaneously sell it back to them at lower prices, and pay to them the differences. The payments were made through the Federal milk market administrators.

Effect on prices and consumption

As in the case of direct payments to producers, the prices to producers for milk and butterfat also could be supported at any desired level by payments to processors and dealers, by making the payments equivalent to the differences between the announced support prices to producers and the market price level. Such payments would be an effective method of supporting the general level of unit returns to producers. The prices to producers, excluding the Government payments, would be determined by the usual market supply and demand influences and by the widespread practice of basing producer prices on the market prices of dairy products. Government payments, whether direct to producers or through processors and dealers, would not result in the same unit returns to all producers. Returns to individual producers would continue to differ considerably as a result of such factors as location, use, quality, competition, volumes, and efficiencies of plant operations.

Prices to consumers for milk and butterfat would be substantially the same in a program of payments to processors and dealers on all milk and butterfat as in a program of direct payments to producers. In both cases the consumer prices would adjust to the level at which the total supply would be purchased and consumed, except for such limited quantities as might be purchased under a supplementary CCC purchase program for school lunch and welfare uses. Consumption of fluid milk and dairy products in commercial market channels would be greater than under a purchase program.

A program in which the payments would be confined to certain manufactured dairy products would have a considerably different effect on consumption. Since the prices to consumers for fluid milk and products not subject to payments would be at levels corresponding to the support level, their consumption would be the same as under the purchase method of support. Payments limited to a few products would rely for price support effects upon the diversion to the production of those products of the supplies of milk and butterfat in excess of the volumes that could be marketed in other forms at prices corresponding to the support price level. Because of the increased supplies of these products, it might be necessary for their market prices to decline drastically in order to bring about sharply increased consumption of the products. Relatively large payment rates might be necessary.

A program in which the payments to processors would be confined to a few products such as butter, nonfat dry milk solids, and cheese, might result in some undesirable changes in marketing pracicest. For example, it might result in wide swings in market prices and supplies of those products as moderate changes in total milk production

[2] The Defense Supplies Corporation of the Reconstruction Finance Corporation conducted a similar program under which it made payments to creameries on butter produced by them equal to the amount by which the price ceiling on butter was reduced.

or in consumer demand for milk and its products brought about large changes in the production of the few products. Also, substantial quantities of cream and condensed milk are used in making ice cream and many other dairy products and prepared foods. Sharply reduced prices of butter would tend to cause butter to be used in place of butterfat in cream, with the result that the cream otherwise used for such purposes would be diverted into butter production.

Effect on imports

Payments to processors and dealers, like direct payments to farmers, would permit downward adjustments in domestic market prices. A support program carried out by payments to processors and dealers, therefore, would not attract imports of dairy products as much as would the same level of support achieved by the purchase method.

Administrative problems

The administrative organization necessary to conduct a program of payments to processors and dealers would depend somewhat upon the scope of the plan. The operation of the program would include the receipt, checking, and payment of monthly or other periodic applications from processors and dealers. There are about 4,000 manufacturers of dairy products. It is estimated that there are some 15,000 milk distributors and a larger number of producer-distributors and peddlers of milk. The payment program could be conducted through one or more of the regional offices of the Commodity Stabilization Service. If the payments were made on fluid milk, the program could be administered in cooperation with the milk market administrators.

A program that included payments on fluid milk might require amendment of most of the Federal orders regulating the prices of milk in some 53 markets in order to provide that the equivalent of the CCC payments would be taken into account in the formulas that relate milk prices to market prices of dairy products. Any necessary amendment, however, probably could be handled as a general amendment to all of those orders requiring amendments.

RELATIVE COSTS OF PURCHASE AND DIVERSION PROGRAMS AND DIRECT PAYMENTS

While this entire study is concerned mostly with methods of support, rather than level of prices, it also seemed desirable to consider the influences of level of support on the comparison of costs for the two general methods. In determining the cost of the two major alternatives for supporting unit returns to farmers for dairy products, it was assumed that general economic activity, population and employment would approximate that of the average in 1953 and 1954.

Application of the two different levels as well as methods was assumed to apply only to the next several years. Accordingly, it was estimated that milk production after some time had been allowed for adjustment to the new level, would be 125 billion pounds at 90 percent of parity, 122 billion pounds at 75 percent of parity, and 120 billion pounds under conditions of no price support program on manufacturing milk and butterfat. It is likely that, given a longer period to adjust to the different levels of prices, there would be a greater difference in production levels among the different price levels.

It is to be emphasized in any case, however, that the necessary statistical basis does not exist for precise distinctions as to effects of different alternative price levels. The figures presented above are, at best, rough approximations. However, the comparison of types of price-support methods is not altered by this consideration—such a comparison can be made at any price level. Of course, in appraising methods of support, assumptions as to consumer response become very important. Data are only slightly more readily available on this subject than on producers response.

Support at 75 percent of parity

At 75 percent of parity it was assumed that supplies would exceed demand at comparable retail prices by the equivalent of about 3.7 billion pounds of milk. It is probable that purchases of the different products—butter, cheese, and nonfat dry milk—to achieve this objective, would be in about the same proportions as recently. In this case the cost of product would be in the neighborhood of $150 million. If the same level of support were achieved by direct payments (direct to farmers or through dealers and processors), milk production probably would be essentially the same.

To induce consumers to take the quantity (over increase in exports) would require "free" market prices to drop by 35 cents per 100 pounds for manufacturing milk and 7.5 cents per pound for butterfat. These are reductions of 12 percent. These payments on prospective marketings would aggregate around $350 million. Under the purchase-and-diversion method the cost to consumers would be 8,300 million for product and $150 millions in purchases, $8,450 millions in total. With direct payments, consumers would spend $8,200 million for product and, with the 350 millions in direct payments, the total bill would be $8,550 million, cost of reaching stability.

In other words, consumers' total cost would be $100 million greater under direct payments than with purchase and diversion but consumption would be greater by the equivalent of 3.2 billion pounds (and exports would be up by 0.5 billion pounds). Under the purchase-and-diversion method it is possible for the cost of operation to be reduced by sale of product bought. Moreover, such sales or gifts to civilians would tend to increase consumption.

Support at 90 percent of parity

With unit returns to farmers at 90 percent of parity, it was assumed that milk supplies would exceed demand at comparable retail prices by the equivalent of around 11.5 billion pounds. To remove this quantity from the market in usual proportion of butter, powder, and cheese, would cost an estimated $500 million for the products (storage and carrying costs would be an additional cost item). To induce consumers to take an additional 10 billion pounds of milk (exports and shipments probably would increase 1.5 billion pounds), it probably would require price reductions equivalent to about $1.20 per 100 pounds on manufacturing milk and 22.5 cents per pound of butterfat. These represent reductions of 34 percent. The aggregate payments would be $1,225 million. The total cost to consumers under the purchase-and-diversion method would be $9,025 million (8,500 for products bought and the 525 million for price support, from Treasury). Under direct payments the total consumer outlay would be $9,325 million ($8,100 million in the market place and payments of $1,225 million). Under

direct payments, however, consumption would be 10 billion pounds greater than under the other type of operation.

Here again, of course, it is possible for the net cost to Government to be reduced in the case of purchase and diversion by sale of product bought. It is to be noted, however, that as this volume increases the likelihood of substantial recovery is reduced. Such sales or donations to people in civilian status would tend to increase consumption over that stated above for the purchase method.

Price maintenance compared to no program

In most years since World War II, some dairy products have been sold to the CCC under the price-support program. It is not possible, therefore, to describe exactly the conditions that would prevail if the present support program on manufacturing milk and butterfat were not now in effect. By making some assumptions, however, it is possible to identify some of the major aspects of a "free" market situation if the present program on manufacturing milk and butterfat were terminated.

There are some indications that milk production is tending to level off after increasing at an unprecedented rate for 2 years. On the other hand, total demand is expanding as population increases and consumer incomes per person remain high. Under these conditions it would appear that if present Government stocks were liquidated in a manner not to compete with current production and large imports were not permitted, prices to farmers for manufacturing milk and butterfat, with no support program on manufacturing milk and butterfat over the next 2 or 3 years, probably would average moderately below present support levels, possibly in the neighborhood of 70 percent of parity. The price for all milk, including fluid milk, might show a higher percentage of parity. Toward the end of 3 years some improvement in relative prices might become noticeable, since production would be lower than under a higher price level. Moreover, in 3 or 4 years, some increases in relative prices of beef cattle are likely, which also would tend to have a deterring effect on milk production. A number of the major differences between a situation of no supports and 1 of the 2 alternative levels are roughly indicated in table 1 above, page 11.

Some of the effects of removal of supports from manufacturing milk and butterfat would include a decline in cash receipts from the sale of dairy products, an increase in consumption over that now prevailing, and wider seasonal changes in prices than have occurred recently. Initially, at least, there might be relatively greater declines in prices for manufacturing milk than for fluid milk, since prices of the latter are stabilized by some factors not closely associated with the support program on manufacturing milk and butterfat. Even with no support program, it is probable that domestic prices would continue above world prices so there would be no significant increase in exports. On the other hand, large imports would occur if import controls were removed.

A sudden reduction in milk prices actually induces some farmers to expand their milk output, for a short period at least. But given time for the various adjustments in resource uses to be completed, it is probable that milk production under conditions of no support would be in the neighborhood of 120 billion pounds, assuming population and economic activity at the 1953–54 levels. All of this would move into

regular commercial outlets where consumption would be greater than under direct purchase method at either level of support but less than under a system of direct payments. Cash receipts from the sale of dairy products would be around $3.7 billion compared to $3.9 billion if returns were supported under either method at 75 percent of parity and $4.6 billion if supported at 90 percent of parity.

PAYMENTS ON INCREASED USES OF DAIRY PRODUCTS

Description of method

Payments might be used to encourage certain uses of milk and its products as one means of supporting prices to producers for milk or butterfat. For example, the Government could pay either part or all of the cost of dairy products used in bakery products in excess of an average rate or the rate used in some base period. Another example would be to make payments on skim milk processed into casein.

Section 32 funds might be used for some programs of this type subject to the availability of such funds and the restriction in section 411 of the Agricultural Act of 1949, as amended, which specifies that section 32 funds shall be devoted principally to perishable nonbasic agricultural commodities other than those designated in title II of the act which include milk and its products. Additional legislation would be necessary to authorize the use of CCC funds for such payments.

The Government has had no previous experience in making payments on restricted uses of milk or its products, although it has made payments on diversion of some other agricultural commodities to byproduct uses.

Effect on prices and consumption

CCC payments on specified uses of milk or its products would tend to have the effect of increasing the total market demand for such milk or its products and of strengthening market prices of them.

The amount of increase in use of dairy products in prepared foods that could be brought about is uncertain. Although complete information is not available, it is known that substantial quantities of nonfat dry milk solids, dry whole milk, condensed milk, butterfat, and other dairy products are used annually in bakery products, meat products, prepared dry mixes, confectionery, and other prepared foods. The total quantity, however, appears to be a small percentage of the total milk supply. Accordingly, payments on such uses alone would not be adequate when substantial operations would be necessary to support a desired level of prices to producers for milk and butterfat.

Casein and other industrial uses represent a low-value outlet for milk solids in competition with large imported supplies of low-priced casein and with other low-priced industrial products. Relatively small quantities of milk solids have been used for such purposes in recent years. The value of skim milk in industrial uses under present conditions is much lower than its value for food products under the present support program. Since industrial uses do not offer a prospective favorable market for dairy products in the future, payments to enable such uses would not have a lasting beneficial effect on the market for dairy products.

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Administrative problems

Payments on all or part of the increased use of dairy products in bakery products would encounter some of the difficult problems that also would be involved in sales of CCC stocks at reduced prices for such purposes. They would include the problem of defining and determining increased use in the face of the differences in amounts of dairy products now being used by different companies, the many thousands of small operators, and the problem of providing opportunities for those to participate whose applications for payments would have to be received, checked, and paid.

BARGAIN SALE PLAN

Consideration has been given to a possible plan, other than a payment program that would in effect reduce the average price of butter or cheese to consumers in order to increase consumption in regular trade outlets and reduce CCC inventories of the products. CCC would continue to support prices to farmers for milk and butterfat by continuing to purchase all butter, Cheddar cheese, and nonfat dry milk solids offered at prices corresponding to the support level.

CCC would offer to sell butter, for example, at a low price to distributors. Such sales would be limited to quotas equal to some percentage of the quantity of butter printed in a recent base period for sale to commercial-trade outlets. The distributors would sell print butter to the commercial-trade outlets on the basis of an average or blend price that they would compute on the basis of the cost of butter that they purchased at the low price from CCC and the cost of butter that they acquired from current production at prices corresponding to the current level of support to farmers for milk or butterfat. The retail price to consumers would be decreased correspondingly. As an alternative, the distributors might sell butter to the trade outlets for resale to consumers on the basis of a low price for an additional pound (or half or quarter pound) with each sale of a pound of butter at the regular price which would correspond to the current support level. The latter would require appropriate labeling.

It appears that such a program could be carried out under present legislative authority.

CCC has had no previous experience with this type of plan.

Effect on prices and consumption

Since prices to producers for milk and butterfat would continue to be carried out by CCC purchases of dairy products at prices that would reflect the support level, the plan, if successful, would not affect current prices to producers or prices received by processors who sold bulk butter to distributors.

In the case of sales on an average or blend-price basis, the decrease in distributors' and retailers' selling prices for print butter, and the resulting increase in consumption, would depend largely upon the quantity of butter sold by CCC to distributors under the plan, the price at which it sold such butter, and the consumers' response to the reduction in price to them. It would be necessary for CCC to sell a large quantity at a very low price to enable distributors to reduce their selling price for all butter enough to bring about a substantial increase in consumer purchases and consumption.

It is estimated that total consumption under the plan would not increase by a quantity equal to the CCC sales to distributors and that the CCC butter distributed to retail outlets would partly replace butter that otherwise would be sold from current production. As a result, it would be necessary for CCC to buy, in addition to the quantities that it otherwise would buy in carrying out the support program, a quantity equal to this replacement of current supplies in retail outlets.

It appears that domestic consumption of creamery butter in the commercial market (not including military, school lunch and welfare uses) in recent months has approximated 90 million pounds per month. Market prices of bulk butter during most of this marketing year have been at about the CCC buying price of 57.5 cents per pound for Grade A butter at Chicago. The United States average retail price of butter has been about 69.3 cents per pound, or 11.8 cents above the bulk price.

The cost to distributors of 90 million pounds of bulk butter from current production at 57.5 cents per pound would be $51,750,000. If CCC sold 50 million pounds of its butter to distributors at 1 cent per pound, for example, the cost of such butter to them would be $500,000. The total cost to distributors of the 140 million pounds would be $52,250,000, or an average of about 37.3 cents per pound. Assuming no change in their markups, the sale of butter to retailers on the basis of such a cost would enable them to reduce their prices to consumers to about 49 cents per pound or 29 percent from the recent level. Even if such a decrease in price resulted in a full 29-percent increase in consumption, which is highly improbable, the total consumption in commercial trade outlets would increase by only 26 million pounds to 116 million pounds.

In this case, 24 million pounds of the butter sold by CCC to distributors would replace an equal quantity from commercial supplies that otherwise would have been consumed. It would be necessary for CCC to buy 24 million pounds of currently produced butter at its announced purchase price in order to maintain the market price of bulk butter at a level that would reflect the support level to farmers for milk and butterfat. The cost to CCC of buying 24 million pounds at 57.5 cents would be $13,800,000. This would represent the additional cost to CCC of reducing its inventory by 26 million pounds, or the increase in consumption under the plan. The small amount received by CCC from its sales at 1 cent per pound would not more than cover additional handling and administrative costs.

It is probable that a decrease in retail price of butter would result in a smaller percentage increase in consumption, that more than half of the CCC butter would displace butter from commercial supplies, that it would be necessary for CCC in effect to buy back from current production the equivalent of more than half of the quantity it sold, and that the additional cost to CCC to reduce its inventory would be correspondingly greater.

The alternative of offering butter to consumers on the basis of additional butter at a low price with each purchase at the regular price probably would have a similar result.

Administrative problems

The plan would involve several other difficult problems for both CCC and distributors. They would include problems of establishing

quotas for all distributors, of getting the quotas of CCC butter delivered to them promptly so that they would be on an equitable basis competitively and of coordinating the distribution of CCC butter and butter from current production. It would be necessary also to provide a means for about 2,000 creameries, which print and sell some butter locally but could use relatively small quantities of CCC butter, to participate in the program so that they could compete locally with butter distributed by larger companies. The distributors also would be confronted with the problems of determining their selling prices or of special packaging or labeling.

It probably would not be feasible to condition the CCC sales of butter to distributors under the plan upon the adoption of any particular price basis of sale of print butter by them, because butter prices vary somewhat by areas, brands, quality, and outlets and because it would not be possible to effectively police and enforce such provisions throughout the Nation. Accordingly, it would be necessary to rely upon competition to reduce prices to consumers under the plan. Such a plan would require extensive publicity to explain the program to consumers.

Industry financed and operated programs

Several programs have been proposed under which the dairy industry would have responsibility for financing and operations. They embody one or more of the purchase, quota, or payment methods that are discussed in other sections of this report. The principal self-help features of these proposals are the levying of fees on farm sales of milk and butterfat to cover part or all of the cost of the programs and the administration of the program by an industry board.

Assuming similar market conditions it is apparent that it would be necessary to purchase and remove from the market the same quantities of dairy products to support the same level of prices to producers whether the program were administered by the Government or by an industry board. Also the level that it would be feasible to support by purchases of dairy products would be the same because similar problems of limited outlets for products acquired under the program by sales or donations to school lunch, welfare, military, and other outlets would be encountered. The disposition of stocks by sale in commercial export outlets would involve the same problem of international trade and relationships.

The problems of establishing and administering quotas and of making payments to producers or to processors embodied in certain plans would be similar regardless of who operated the program. They are discussed in other sections of this report.

The cost of carrying out the same type of program to support the same price level, including costs of purchasing, storing, and disposing of dairy products, or of payments to producers or processors, would be essentially the same regardless of who administered the program. The fees levied on farm sales of milk and butterfat, however, would in effect reduce the support level to producers by a corresponding amount.

The several industry-financed plans that have been proposed would provide for varying combinations of Government and industry financing. Certain proposals would provide for the Government to bear the cost burden of present price-support stocks and of future price-support purchases of dairy products that might be attributed to imports and to increased milk production resulting from diversion of land to dairy

production under crop-control programs. The extent to which the cost of price support would be shifted from the Government to the producers would depend upon who bore the cost of dairy products donated for school lunch, welfare, and other uses and upon the amounts of fees collected compared with the total cost of support operations.

The self-help proposals generally provide for the administration of the program, including the determination of support level, determination of rates of fees, and direction of program operations by an industry board consisting entirely or mainly of producers or their representatives, without prior approval by the Secretary of Agriculture and without prior approval by producers through referendums. These provisions involve important policy questions of delegation of authority and legislative guides as to support level rather than questions of relative feasibility of support and production control methods as such.

EFFECT OF PRICE-SUPPORT METHODS ON DAIRY PRODUCTION AND UTILIZATION

The effect of any price-support program on milk production depends mainly upon the price-support level at which it supports returns to farmers for milk and butterfat, the prices of other farm commodities, the supplies of feeds, and other production conditions. Assuming the same support level, it is probable that the effect on total milk production would be about the same whether the support were carried out by the purchase, payment, or some other method. In other words, there is no particular reason to believe that dairy farmers as a group would respond differently to the same level of returns if they received such returns from processors and dealers entirely in price or part of it in price and part of it in a Government payment. Also, it is probable that the difference in effects of different support methods on regional production would be too small to predict with a useful degree of accuracy.

Certain price-support methods would have greatly different effects than others on the utilization of milk and butterfat. The purchase method channels into the production of those products purchased under the program all of the milk supply in excess of quantities that can be marketed in commercial outlets in the forms of fluid milk and its products at prices corresponding to the support level. The supplies of those products produced in excess of consumption in the commercial markets are sold to CCC. To the fullest extent possible these supplies subsequently are distributed for consumption in school lunch, welfare, military, and other outlets.

Payments to processors and dealers on all milk and its products, or direct payments to farmers on all milk and butterfat, would result in the consumption of the total supplies of milk and its products in commercial market outlets. In both cases, the consumption of fluid milk and all dairy products in the commercial market outlets would be greater than under a purchase program.

Payments to processors limited to a few dairy products would have a different effect on the utilization of milk and butterfat. Consumption of fluid milk and other dairy products, on which payments were not made, would be about the same as under the purchase program and would be those quantities that consumers would buy at prices

corresponding to the support level. The increased total supplies of the products subject to payments would be marketed and consumed in commercial market outlets, their prices declining enough to induce consumers to buy the total supplies. A program of payments limited to a few dairy products could result in wide year-to-year fluctuations in consumption of those products in regular market channels. This is true because relatively small percentage changes in total milk production and, therefore, in the excess production, would cause relatively large percentage changes in the production and consumption of those products.

MARKETING AGREEMENTS AND ORDERS

Marketing orders administered by the Federal Government are used extensively in marketing fluid milk. Prior to public regulation, producers attempted, through their cooperative associations, to develop orderly marketing and satisfactory pricing for their milk. Negotiations between producers and distributors often included systems of classified pricing and pooling. Nevertheless, prices of milk to producers often became seriously depressed because of disparities in bargaining strength between producers and distributors. The weaknesses of producers in bargaining for the sale of their milk were closely associated with the bulk and perishability of fresh milk, their inability to market surplus milk and the different seasonal patterns of milk production and consumption. As a result of these marketing difficulties, milk producers in many areas requested Government intervention to achieve orderly marketing of milk.

Marketing orders apply to milk produced for distribution in certain specified market areas, and require all milk handlers to pay to producers specified minimum prices for milk in each use classification and to observe certain terms of sale with respect to milk purchased from producers. The orders do not guarantee producers a market for their milk.

Marketing orders prevent sharp price reductions arising from bargaining inequalities and therefore they have resulted at times in higher prices to producers than would occur in the absence of regulation. On the other hand, unregulated prices to producers may result in widely fluctuating supplies and prices which could bring about higher longtime average prices than occur in regulated markets. Under marketing orders, prices are adjusted promptly, but less sharply than in a free market, to changing economic conditions. Removal of price uncertainty permits producers to make production plans and commitments with greater confidence than under conditions of price uncertainty which often prevail in the absence of price regulation. Consequently, a greater production usually accompanies a given price level than in the case of unregulated market conditions. During recent years price-support programs for manufactured dairy products have been an important influence in determining the level of all dairy prices, including prices of fluid milk in regulated markets.

An objective of Federal milk-marketing orders is to assure an adequate supply of milk to meet fluid requirements plus a necessary operating reserve. Pricing formulas are used in Federal orders to adjust milk prices to changing economic conditions. These formulas are designed to achieve a balance between local supply and demand

conditions at price levels approximating those which would occur in unregulated markets under conditions of equal bargaining strength between producers and distributors.

Although more complete information generally is available in regulated markets than in nonregulated areas concerning marketing and price conditions, and although orderly procedures are provided (through hearings, etc.) for bringing available information to bear on problems and for resolving differences of opinion or conflicts of interest, nevertheless the determination of the right price for milk in fluid markets is a difficult matter. This has made it necessary to include supply and demand adjustment devices in Federal milk orders in order to adjust prices to changing economic conditions. Public hearings provide the mechanism for obtaining facts which may indicate necessary revisions in the formula factors themselves in order that the basic level of price, as well as increases and decreases from that level, remain consistent with long-run economic conditions.

There are 53 Federal milk-marketing orders in effect regulating the handling of milk delivered by 186,000 producers. Milk sold under Federal regulation during 1953 was nearly one-third of the total whole milk delivered to plants in the United States. Funds for administering Federal milk orders are collected from handlers regulated by the orders in proportion to the volume of regulated milk which they handle. The rate paid by handlers varies from market to market and ranges from 2 to 4 cents per hundredweight in most Federal order markets.

Regulations which establish minimum producer prices on differentiated price bases according to use are administered by several States. In some States, a flat-price basis or a requirement of minimum resale prices is included in the regulation. In some States where local authorities administer milk price-control programs for intrastate markets, the larger interstate milk markets are regulated by Federal milk orders.

Marketing agreements were adopted in the 1930's for evaporated milk and nonfat dry-milk solids in an attempt to correct unstable prices and marketing conditions for those two products. The evaporated-milk agreement was accompanied by a license, and required each manufacturer to file a schedule of his selling prices of evaporated milk, and to pay specified minimum prices to producers for milk, computed on the basis of butter and cheese prices. However, the minimum prices specified in the formulas were generally below the prevailing market prices for milk purchased by condenseries. Each manufacturer's schedule of selling prices indicated the terms of sale for each size, quantity, and brand and the applicable sales area, and a manufacturer could modify his selling prices by filing a new or amended list. Certain industry trade practices also were controlled by the agreement and license.

The marketing agreement for nonfat dry-milk solids provided for the filing of sales prices by manufacturers according to grades, brands, quantities, and sales areas, and also contained a number of provisions designed to prevent undesirable trade practices. The agreement was not accompanied by a license and therefore was binding only on the signatory parties. More than 90 percent of the members of the industry supported the agreement at the time of its adoption.

Marketing agreements and orders are well adapted to the maintenance of orderly marketing and pricing conditions in the fluid-milk industry and they could be used for such purposes in the manufacturing-milk industry. However, they are not by themselves an adequate method for maintaining prices to producers over long periods of time at levels unrelated to market supply and demand conditions. Such a pricing policy would generate surpluses for which no market outlet was provided by the marketing order or agreement program. This situation could be corrected only by controlling the production or marketing of milk, or by providing alternative outlets for the surplus supplies.

SECTION III

MEASURES TO INCREASE CONSUMPTION OF MILK AND DAIRY PRODUCTS

The level of consumption of milk and other dairy products is affected by several factors aside from price. The measures discussed in this section range from those which attempt to increase demand for milk and its products in established outlets at a given level of prices to those which would expand the forms in which products are offered to consumers and increase the availability of dairy products to consumers. Some of the measures which have been used and are discussed in the following section were originally adopted as part of the effort to dispose of surplus dairy products which had been bought under a previous price-support program. Others are proposals with the sole objective of increasing consumption of milk products in the interest of better diets and could be carried on even in the absence of a direct price-support purchase program. To the extent that the latter are successful, of course, there would be a tendency to minimize any future price-support problem. Many of the programs already are in use and include efforts along educational lines to inform consumers of the nutritional values of milk; development of new products and improvements in the marketing of milk; more effective merchandising and sales promotion methods; and Government-sponsored distribution programs to stimulate greater consumption through normal channels of trade and through the donation of price-support dairy surpluses to consumer groups with limited food budgets both in this country and overseas.

There is considerable opportunity for the development of larger consumer markets for milk and dairy products. Greater consumption would contribute to improvement in the health of the Nation's population. Increases for some segments of the population have long been recommended by nutritionists. Surveys show that of the nutrients generally considered in nutritional appraisals of diets the one most likely to be supplied in smaller than recommended quantities is calcium. Milk, of course, is the principal food source from which the need for more calcium (and other nutrients) can be supplied.

Studies made by the Department of Agriculture provide some information on the pattern of consumption of milk and dairy products. In 1948, when per capita consumption of dairy products other than butter was about the same as in 1954—4.6 quarts per week per person of milk or its equivalent in cream, cheese, or ice cream—the following proportions of city households consumed these specified amounts: 8 percent, less than 2 quarts per person; 12 percent, between 2 and 3 quarts per person; 20 percent, between 3 and 4 quarts per person; 20 percent, between 4 and 5 quarts per person; 40 percent, 5 or more quarts per person.

Sixty percent of the households had less than 5 quarts a person a week of milk or its equivalent in cream, cheese, and ice cream. From

a nutritional standpoint, these are the persons whose consumption of milk might well be raised. Studies show that, in general, low-income families use less than those with high incomes; farm families without home-produced milk consume relatively small amounts; families of adults only use less than families with children. As a group, women probably consume the least—less than men, less than teen-agers, with older women using less than younger women.

In any discussion of the possibilities of raising the consumption of one group of foods, it is well to point out that consumption of all articles of food combined are at such a high level in the United States that increases in one group of foods are likely to result in decreases in some other foods. This is even more true today than formerly because of the growing consciousness of the need among adults to control body weight.

NUTRITION RESEARCH AND EDUCATION

Research and education in nutrition and food management tend to increase milk consumption, but the effects of these activities are spread over relatively long periods. Research in this field is time-consuming and expensive. Food habits of adults, especially, are rather fixed and attempts to change them through nutritional motivation meet with only a fair degree of success. Food habits of young people, on the other hand, are more flexible and frequently respond to nutrition education or at any rate parents may respond to nutrition education in the feeding of their children.

Research in the nutritive value of foods and nutrient requirements is carried on by the USDA, many universities and experiment stations, and by private industry. Cow's milk has been found to contain some 100 components; whether all of these have a positive role in human nutrition has yet to be determined. Recommended quantities of milk in human diets have been based largely on calcium requirements since this nutrient is very unevenly distributed in foods, and without milk, calcium is unlikely to be provided in diets in quantities considered desirable. At present levels of consumption, milk in its various forms supplies over three-fourths of the calcium in our national dietary. Nearly half the riboflavin (a B-vitamin) comes from milk, and about a fourth of the protein. Practically all of the calcium, riboflavin, the other B-vitamins, and protein in milk are in the nonfat solids portion.

Nutrition education is carried on through many channels and at different levels—elementary for children and for many adults, more advanced for persons who have greater backgr und for nutritional understanding. In nutrition education, increased consumption of milk will continue to be stressed because (a) it has been found in dietary surveys that calcium is the nutrient most likely to be lower than amounts recommended by nutritionists and (b) milk is the most economical source of calcium among everyday foods and at the same time provides top-quality protein and many other important nutrients, especially minerals and vitamins. Of all the forms of milk, nonfat milk solids are now the most economical in nutritive returns of protein, calcium, and the B-vitamins. Butterfat is a relatively expensive source of calories and vitamin A.

As a means of increasing consumption of dairy products, research and education in nutrition may be expected in the long run to be

highly effective, especially for those products containing nonfat solids. Of all foods, milk stands to gain as much as or more than any other single food from nutrition research and educational programs.

MERCHANDISING AND SALES PROMOTION

This part of the report deals with activities of the dairy industry to increase sales of its products through a variety of marketing devices—improved merchandising methods such as increasing availability through vending machines, reducing marketing costs in various ways, including devices such as larger containers—gallon and half gallon—stepped-up advertising both "institutional" and brand advertising, and instore promotion. Efforts of the Federal Government in the area of promotion have taken the form of encouragement and assistance through such activities as the plentiful foods program of the Agricultural Marketing Service and consumer education activities of the Extension Service. It is to be noted, however, that some States have appropriated funds for the purpose of promoting sales of dairy products. Funds for industrywide promotion work by the dairy industry have been collected on a voluntary basis from producers and processors. Suggestions have been made from time to time that funds for this purpose also could be collected from processors in the form of a tax, or by some other means.

Milk-vending machines

The automatic milk-vending machine is a comparatively new method of dispensing fluid milk and has already given indication that it will be an effective means of increasing fluid-milk consumption. Milk, in order to serve the largest potential number of consumers, must be readily available to meet the demand for the product as it arises.

Milk-vending machines located in industrial installations will serve to make milk as available as soft drinks and other foods which are currently dispensed in vending machines. In large apartment developments vending machines for quarts of milk (or larger units) also offer possibilities for increased milk consumption. Likewise, strategically located vending machines for small units would lead to increased spontaneous purchases from machines located on school grounds, in movie houses, railroad stations, or other places where there are large numbers of people.

In addition to providing greater availability there are other factors through which vending machines tend to increase milk consumption. Milk is properly refrigerated until served. Service is rapid and, in some machines, a selection of flavors may be made. Merchandising experiences have shown that a larger quantity of a product may be sold if more than one variety or flavor is available.

On the other hand, vending machines are relatively expensive, not only from the initial cost standpoint, but also from the servicing required. Vending machines for milk require daily loading and, where demand is heavy, machines may be required to be loaded more than once a day. In addition, maintenance, repair, and other problems may arise and, although minor, may tend to deter their use.

Large size containers

Among the more recent developments to increase milk volume through the mechanism of reduced prices is the introduction of price reductions for volume purchases whether in gallon jugs, half-gallon bottles, or extra cartons. This increased volume commonly sells at reduced prices but the extent to which any increases represent expanded volume—not just substitution of one type for another—is difficult to ascertain. Available information indicates, however, that there is some increase in total volume. In Chicago, less than 5 percent of milk delivered to homes is now in quart containers.

Advertising and promotion by the dairy industry

The purpose of advertising and promotional programs in the dairy industry is primarily to effect an increase in consumer demand for milk and dairy products. There are several types of promotional programs underway. These programs range from national advertising or merchandising campaigns to local campaigns sponsored by producer groups or local distributors of dairy products. The types of campaigns undertaken may be categorized as follows:

1. A national advertising and merchandising campaign on a year-round basis, sponsored by producers and handled through the American Dairy Association. This program is designed to advertise all of the major dairy products in national magazines and on television and radio.

2. Nationwide campaigns undertaken by industry associations of specific manufacturers representing specific products, for example, Evaporated Milk Association, American Dry Milk Institute, or the American Butter Institute. The organizations may carry on nationwide programs designed to promote the sale of particular products of their organization.

3. Nationwide advertising campaigns by large dairy or dairy product manufacturing organizations.

4. State advertising or promotional campaigns carried out by State or local organizations of dairy associations, the farm organizations, or under legislative authority, such as the cheese and butter promotions by the State of Wisconsin.

5. Local advertising and promotion conducted by producer cooperatives or local dairy distributors.

In addition to direct advertising and promotional activity, a number of dairy organizations conduct merchandising schools for training personnel in better merchandising practices for the particular product involved, thereby increasing sales appeal. Organizations such as the International Association of Ice Cream Manufacturers, the Milk Industry Foundation, and other organizations conduct such schools and train wholesale and retail personnel in handling, displaying, and merchandising these products. Additional merchandising work in terms of point of sale materials, display activity, and other types of instore merchandising are carried out by the American Dairy Association and other organizations.

An additional activity in the same field is educational in purpose. The primary organization in this area is the National Dairy Council, which works through medical organizations, educational organizations, and schools in attempting to teach the professional groups, school children, and the public the nutritional importance of milk and dairy products in the American diet.

Very little material is available for appraising the effectiveness of the various types of programs being carried on; that is, effectiveness in terms of increases in sales. More research is needed in this area of marketing.

PRODUCT DEVELOPMENT

Both Government, chiefly the USDA, and the dairy industry have conducted research on and promoted the consumption of new and improved products and new uses for old products. In the USDA, this work is carried out under the general headings of utilization and marketing research. Reports of the current work underway and proposals for new work are summarized in the report prepared each year for the Department's Research and Marketing Advisory Committee on Dairy Products. Much of this research is fundamental in character and may lead in time to new or improved products or new uses for old products. Industry research may also be fundamental in nature but more generally is designed to yield more immediate results.

Research on the development of new products, on the improvement of old ones, and on new or greater uses is constantly being carried out for dairy products. Results are summarized below for four dairy products—nonfat dry milk solids, refrigerated concentrated milk, frozen concentrated milk, and canned whole fluid milk. The role that such products will have in the dairy industry in the years ahead is difficult to determine at this time. To date nonfat dry milk solids is the only one of these that is consumed in large quantities. It would appear that this product is providing the industry with an additional means of raising the level of per capita consumption of dairy products.

Nonfat dry milk solids

In the past few years considerable effort has been made to increase the use of nonfat milk solids for home-use sale. Recent technical developments with regard to solubility have resulted in an improved product that is rapidly dissolvable in water without the use of mechanical beaters. In 1953, 94 million pounds of the old-style product were packaged for home use.[1] This amounted to 15 percent of the total domestic sales (610 million pounds).

Considerable use of nonfat dry milk solids is made in the manufacture of bread, prepared dry mixes, sausage, cheese, and other dairy products. Other uses for this product are in making candies, soups, chemicals, pharmaceuticals, soft drinks, and animal feeds.

More nonfat milk solids are used in the baking of bread and other bakery products than in any other manufactured product. In 1953, 42 percent of the total was so used. Bread contains, on the average, almost 4 parts of nonfat milk solids for each 100 parts of flour. Additional amounts of milk solids—generally about 6 percent—have been recommended by nutritionists and others. Since bread is consumed in greater amounts by low-income than high-income familiies, additional use of milk solids in bread would be of most benefit to the diets of those most in need of improvement.

The use of nonfat milk solids in prepared dry mixes has increased substantially in the last few years (35 percent from 1952 to 1953) and will continue to increase as the sales of prepared dry mixes increase. To a considerable extent, this use of nonfat dry milk solids represents a shift from home use of fluid whole milk to the use by the manufac-

[1] 1953 Census of Dry Milk Distribution and Production Trends, American Dry Milk Institute, Inc.

turer of nonfat dry milk solids. The amounts of fluid whole milk used in households for baking, however, have not recently been a large proportion of the total amounts used. Hence, this shift in utilization is probably not very significant.

The use of nonfat dry milk solids in other manufactured foods and in the several nonfood products has decreased considerably in the past year or two. President indications are that, unlike flour mixes, the consumption of these foods is not likely to increase markedly in the next few years. Except for the manufactured dairy products and sausage, consumption of the other manufactured products is relatively small so that any increased utilization of milk solids in their manufacture would not expand the market for nonfat dry milk solids to any great extent.

The likelihood is that the greatest potential use of nonfat dry milk solids as a means of raising total milk consumption comes in their greater use in manufactured products—both in increasing the proportions in those products in which milk solids are already used and in finding new products to which they might be added with benefit. Greater use of the packaged nonfat dry milk solids in homes may not represent a net increase in the consumption of dairy products. Although in some households use of the packaged product supplements rather than displaces fluid milk, in many households nonfat milk solids may be merely replacing much of the fluid whole milk formerly purchased.

Refrigerated concentrated milk

In about 1951, refrigerated concentrated whole milk was introduced to the consumer market in the Northeast and North Central regions. This product is not to be confused with evaporated or condensed milks, which have been on the market for many years. Concentrated milk needs refrigeration but not freezing temperature. It is said to keep undiluted in a refrigerator for 2 or 3 weeks. It is reconstituted by adding 2 parts water to 1 part milk. The flavor varies among brands. The price of concentrate at stores in some communities has been only about a cent or 2 cents a quart less than an equivalent quantity of fresh whole milk. When delivered to homes, the price of concentrate has been nearly that charged per quart for fresh milk.

For a short period after its introduction, it appeared that concentrated milk might gain a place in the fluid milk market. However, sales have steadily declined in most markets in which concentrated milk was introduced and in some it has disappeared completely. Absence of substantial savings accounts in part for the apparent lack of success in moving this product into consumption. Lack of appeal to consumers has apparently also been a factor in its failure to make greater gains in sales.

Frozen concentrated milk

Frozen concentrated milk, which will keep for a considerable period of time, has also been developed. When reduced to one-third or one-fourth its original bulk, it will keep considerably longer than fresh milk or refrigerated concentrated milk. However, this product must be stored at −10° F. or below in order to prevent deterioration. Home refrigeration facilities of this type are not common, refrigerated trucks for delivery are necessary and the cost of producing and delivering the product may be too high to be competitive on the present-

day market. Widespread use of frozen concentrated milk is not anticipated within the near future because of the refrigeration facilities required for delivering and keeping the product and the costs of processing.

Canned whole fluid milk

Research has been conducted on new processes of sterilizing milk, which have led to the marketing of canned whole, nonconcentrated milk with a color, flavor, and storability intermediate between that of pasteurized and evaporated milk. The potential market for this product is unknown at present, but it is entirely possible that in the years to come an economical method of sterilizing whole milk will be perfected which would give longer life than present pasteurization and give a relatively much less perishable product. This process could ultimately lower the retail cost of whole milk and lead to increased consumption.

DISTRIBUTION PROGRAM

Distribution programs represent efforts on the part of the Government to encourage expanded markets for agricultural commodities. They have the short-run objective of increasing the demand for and consumption of foods in plentiful and surplus supply. In addition, they have a long-range objective of bringing about a stronger demand for agricultural commodities and improve health and nutrition.

Distribution programs began in the 1930's with the donation of surplus foods acquired by the Department to groups with inadequate food budgets. This program, called direct distribution, is still in operation and large quantities of dairy products are being provided from CCC stocks to school-lunch programs and needy persons. However, increasing emphasis has been placed on programs designed to expand food markets and consumption through normal channels of trade, i. e., activities that result in increasing the purchase of dairy products in local markets through regular suppliers—wholesalers, retailers, and dairies. These activities include the national school-lunch program, the special school milk program introduced in September of 1954, and the plentiful foods program. Other distribution programs such as the food stamp plan and a milk program for low-income families were operated in the early 1940's but were discontinued during World War II.

Price support aspects of distribution programs

As noted above, distribution programs are of two types. First, the direct distribution of dairy products is an adjunct of price-support purchase operations in that it provides an outlet for surpluses acquired as well as improving the diets of persons benefiting. Second, other distribution programs attempt to increase consumption of milk and dairy products through normal trade channels. Programs of the latter type provide a measure of price support in proportion to the scope of the operations undertaken. They have not ordinarily been conducted to provide a specific price-support level for a particular commodity as in the case of purchase operations for dairy products. The school-lunch program, for example, is authorized on a permanent basis to improve the health and nutrition of schoolchildren and to expand consumption of agricultural commodities and other food.

Volume of dairy products moved

A record volume of dairy products will be donated from CCC inventories to domestic and foreign outlets this fiscal year under direct distribution operations. A total of 330 million pounds of dairy products were moved in fiscal 1954 and it is estimated that more than double that quantity will be moved in fiscal year 1955 with the major part of the expanded distribution going to needy persons overseas. If this volume is reached, as presently indicated, the total disposition in the fiscal year 1954–55 from CCC stocks of butter, cheese, and nonfat dry milk solids in domestic and foreign outlets would be up to 6.6 billion pounds in milk equivalent.

Consumption of fluid milk in schools is being encouraged with Government assistance through two programs. The national school-lunch program, which was established on a permanent basis in 1946, currently represents a market for approximately 850 million pounds of milk annually for beverage purposes. It is currently expanding at a rate of 5 to 7 percent each year with a comparable increase in milk consumption. A special school milk program was established in September 1954 under new legislative authority providing $50 million annually for the fiscal years 1955 and 1956 to increase the consumption of milk. It is estimated that the funds available will permit an increase of over 600 million pounds annually in milk consumption in schools.

The plentiful foods program was developed in 1947 as a method of enlisting the cooperation of food trade groups in merchandising programs to increase purchases and use of plentiful foods. Through this program the Department has actively cooperated in dairy industry promotion campaigns. While no actual quantitative measure is available on the immediate effectiveness of these cooperative Government-industry efforts to expand markets for milk and dairy products, such efforts represent one of the major approaches needed to bring about higher consumption levels for milk and dairy products.

Other possible programs

Low-income families represent a potential outlet for increased milk consumption. No program is currently authorized to reach this group, but various proposals have been advanced for some type of food stamp or food allotment program to increase the level of food consumption among low-income families, particularly for foods in surplus or plentiful supply. In addition, some consideration has been given to a similar plan restricted to fluid milk. Such a program might provide an outlet for an additional 750 million pounds of milk annually or between 1 and 2 percent of present fluid milk consumption. However, there are difficult administrative problems involved in a program of this type, as indicated by experience with the stamp plan, and experimental operations would be required to determine the most effective administrative and operating techniques prior to establishment of any national program.

DIRECT DISTRIBUTION PROGRAM

The direct distribution program represents one method of utilizing surplus dairy products acquired under price-support programs which cannot be moved back into normal channels of trade before deterioration or possible spoilage. Distribution to domestic recipients is

accomplished under a plan whereby the Department ships the surplus foods in carload lots to central receiving points within the various States. An agency of the State assumes responsibility for handling and storing the foods and for their delivery to the final recipients. Distribution to needy persons overseas is accomplished through private welfare organizations which arrange for transportation and supervise actual distribution.

Previous experience

The volume of surplus foods donated under this program has varied over the years, depending partly upon the need for purchases for market stabilization purposes. Large quantities were distributed between 1935 and 1941. During World War II only limited donations were made. The volume of donations has increased in recent years, with 1954 the peak post-World War II year of distribution. The table below shows the total distribution of dairy products, both domestic and foreign, in recent years:

[In millions of pounds]

Commodity	Fiscal year						Total
	1949	1950	1951	1952	1953	1954 [1]	
Butter	0	26.2	66.9	0	22.3	131.9	247.3
Cheese	13.3	18.6	31.7	10.2	14.3	75.9	164.0
Nonfat dry milk solids	8.9	25.3	151.5	20.7	42.6	122.2	371.2

[1] Preliminary.

Volume of dairy products moved, fiscal year 1954

A total of 330 million pounds of dairy products from the inventories of the Commodity Credit Corporation were moved into consumption channels in 1953–54, through donations to nonprofit school-lunch programs in this country and to needy groups both here and overseas. The quantities of the various manufactured dairy products distributed were:

	Million pounds
To domestic recipients:	
Butter	72
Cheese	45
Nonfat dry milk solids	29
Total	146
To needy persons overseas (through United States private welfare agencies):	
Butter	60
Cheese	31
Nonfat dry milk solids	93
Total	184
Grand total	330

These dairy products were made available to 12 million persons in this country, including children in school-lunch programs, inmates of charitable institutions, needy Indians, and other needy persons.

A total of 18 United States private welfare agencies distributed these surplus dairy products to needy persons in 40 countries in 1953–54.

Potential distribution of dairy products

On the basis of present indications, up to 730 million pounds of dairy products will be moved to domestic and foreign outlets this year. This quantity is indicative of the probable maximum that can be distributed under existing conditions. It is estimated that domestic distribution in 1955 will include about 95 million pounds of butter, 75 million pounds of cheese, and 55 million pounds of nonfat dry milk solids. Distribution to foreign outlets this year is being made under new authority with packaging and transportation costs to port being paid by the Commodity Credit Corporation. Present indications, based on plans of the welfare agencies handling this distribution, are that about 155 million pounds of butter, 90 million pounds of cheese, and 260 million pounds of nonfat dry milk solids will be moved in fiscal 1954–55.

Any further expansion in the direct distribution of dairy products would be dependent upon an increase in the number of persons eligible in this country and the ability of United States relief agencies to finance ocean transportation costs and to handle larger quantities for assisting needy persons overseas, assuming supplies were to continue to be available.

Effects on consumption

Through direct distribution, surplus dairy products acquired by the Department are constructively used to improve the diets of children in school-lunch programs, of inmates of charitable institutions, and of needy families. Because school-lunch programs and the other eligible groups operate on limited food budgets, the donation of dairy products enables them to increase consumption substantially beyond the amounts normally consumed. Moreover, these donations can help build an expanded future market for the foods used. The use of nonfat dry milk solids by school-lunch programs illustrates this point.

Nonfat dry milk solids were first introduced into the national school-lunch program in 1946–47 when 800,000 pounds were made available. The milk was offered to all schools for cooking purposes and for reconstitution as a beverage to those schools unable to obtain supplies of fluid milk.

Most local school-lunch people were unfamiliar with the use of dry milk. Therefore, the Department undertook an information program showing how the milk should be handled and stored, proper reconstitution methods, and its cooking uses—how it could be used to increase the nutritive value of sauces, stews, and meat loaves and how to prepare kitchen-made mixes for quick breads and cookies. State school-lunch agencies followed up these efforts by including demonstrations of the use of dry milk in workshops held for school-lunch managers and cooks.

As a result of these efforts, the school-lunch market for nonfat dry milk solids has steadily expanded. Last year, school-lunch programs used 13.5 million pounds of this milk from the surplus stocks of the Commodity Credit Corporation alone. With the continuing growth of school-lunch programs a permanent expansion in the market for nonfat dry milk solids is being accomplished.

Cost of program

Annual costs of the program vary from year to year, depending upon the volume of commodities available for distribution as a result of price support or surplus removal operations. For fiscal year 1954

it is estimated that the total cost to the Government of dairy products distributed both domestically and abroad was about $146 million. The donation of these foods provides for constructive use of surpluses, avoids spoilage, and is a less expensive method for utilization of surpluses than some sales programs.

Legislative authority

There are two legislative authorities for the program: (1) section 32 of the act of August 24, 1935, provides an annual appropriation (equal to 30 percent of the annual customs receipts) for the general purpose of expanding domestic and export markets for agricultural commodities; (2) section 416 of the Agricultural Act of 1949, as amended, provides that food commodities acquired under price-support programs may be donated under certain conditions to eligible outlets (school-lunch programs, Bureau of Indian Affairs, charitable institutions and needy persons in this country, to nonprofit institutions in this country assisting needy persons overseas, and to intergovernmental agencies).

NATIONAL SCHOOL-LUNCH PROGRAM

The national school-lunch program is a grant-in-aid type of program which is administered by State departments of education within the States. The objective of the program is to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of agricultural commodities and other food.

Description of program

Under this program funds are paid to individual schools for the service of meals that meet nutritional standards established by the Department of Agriculture and each meal must include whole milk, if a suitable supply is available in the area. Schools located in areas where an adequate supply of fluid milk is not available may be approved for the service of meals without milk but at a reduced rate of reimbursement. In addition, schools receive surplus foods acquired under price-support and surplus-removal operations.

In the fiscal year 1954, the Federal contribution to the school-lunch program was $83.4 million in appropriated funds and $94 million in surplus foods.

Previous experience

Federal assistance to school-lunch programs began as early as 1935 with the donation of surplus foods purchased under section 32 of the act of August 24, 1935. By 1940 nearly 2.5 million children were participating in the program. The availability of surplus foods, however, declined rapidly soon after the beginning of World War II and in 1943 funds were provided under section 32 for continuation of the program on the basis of cash payments to schools for part of their local food purchases. In June of 1946 the program was authorized on a permanent basis by the National School Lunch Act. Since that date, the program has expanded steadily to reach over 10 million children in 1954, nearly one-third of total school enrollment.

Effects on consumption

Large purchases of milk by schools have resulted from the program's emphasis on the service of milk, thus helping to expand local markets for milk. Moreover, by helping to develop the milk-drinking habit

among children, the program helps to build the base for the expansion of future milk markets. In 1954 participating children consumed 400 million quarts of milk as a beverage, more than double the amount used by participating schools in 1946–47, the first year of operation under the National School Lunch Act. Milk used as a beverage is purchased by the schools from local dairies. Their expenditures for milk represented about 30 percent of the $275 million spent locally for food by school-lunch programs in the fiscal year 1954.

State educational agencies (which are responsible for program administration within the States) have sought the assistance of State Departments of Agriculture and dairy groups to help schools overcome local milk shortages. These efforts, together with the educational efforts of schools to impress children with the importance of drinking milk, have resulted in a marked increase in the number of meals served with milk. In 1953–54, 96 percent of the 1.7 billion meals served under the program included fluid milk as a beverage, compared to 85 percent in 1946–47, the first year of operation under the National School Lunch Act.

In addition to fluid milk consumption, schools received in 1954, 43 million pounds of butter, 27 million pounds of cheese, and over 13 million pounds of nonfat dry milk solids under the direct distribution program. Including milk purchased as a beverage and the donated dairy products, the school-lunch program accounted for about 2 billion pounds, in milk equivalent, in 1954.

Cost of program

The cost of the program to the Government in the fiscal year 1954 was $83.4 million in appropriated funds and $94 million in donated foods. State and local sources contributed $113 million and over $300 million came from participating children. Total contributions from all these sources amounted to nearly $600 million.

Legislative authority

The program is authorized under the National School Lunch Act of 1946. The act provides for advances of funds to the States to be matched from sources within the States. Section 6 of the act provides that part of the annual appropriation may be used by the Department to purchase food for direct distribution to participating schools.

SPECIAL SCHOOL MILK PROGRAM

The special school milk program, announced by the Department on September 10, 1954, is designed to move more milk directly into consumption channels by assisting States and local communities to increase the serving of milk in schools.

Description of program

Increases in consumption are accomplished under the program by reimbursing schools for a portion of the cost of additional milk served. A base is established for each participating school, representing consumption of milk by children last year. Schools which previously served milk may be reimbursed up to a maximum of 4 cents for each one-half pint served in excess of their base. Schools that previously had no milk service are reimbursed up to a maximum of 3 cents per half pint served. The program will help to stimulate increased con-

sumption in those schools now serving milk, as well as encourage the establishment of milk service in more schools throughout the country.

School officials are given wide latitude in deciding how and when the additional milk will be served in school. It may be served with the noon lunch or at any other time during the school day.

Previous experience

In the fiscal years 1941 through 1943 the Department operated a penny milk program. Under this program schools received a Federal reimbursement in an amount equal to marketing costs per half pint of milk, children paid 1 cent and the remainder was made up by local sources. This program was merged with the school-lunch program in 1943. In the school-lunch program, which was established on a permanent basis in 1946 by the National School Lunch Act, a maximum Federal reimbursement of 2 cents per half pint of milk was permitted with the remainder being paid by either the children or from local sources. In recent years, however, many States have discontinued reimbursement for milk as a separate serving in order to concentrate available funds on reimbursement for complete meals.

Effects on consumption

The program is designed to encourage greater consumption in schools already serving milk and has been made particularly attractive to schools not now serving milk. Since it was initiated in most States during October and November, it is too early to determine its probable effects in terms of the amount of increased consumption that will be obtained. However, it is estimated that funds available would permit the additional consumption of over 600 million pounds of fluid milk on an annual basis.

Cost of program

The program is to cost not to exceed $50 million for each of the school years 1955 and 1956. Administrative costs will be low because the program is being operated through the Agencies now administering the national school-lunch program.

Parents of participating children will pay part of the costs of the additional milk served which may range from 1 cent up to 4 or 5 cents, depending partly on costs of milk in the area.

Legislative authority

The program is authorized under section 201 (c) of the Agricultural Act of 1949, as amended, which authorized the expenditure of not to exceed $50 million annually for 2 years to increase milk consumption in schools.

FAMILY MILK PROGRAM

A family milk program could be designed to increase the market for fluid milk by making it possible for low-income families to consume more adequate quantities of fresh, fluid milk. There are many administrative problems inherent in a program of this nature and experimental operations would be needed prior to inauguration of an actual program in order to determine program costs, results, and the most effective administrative procedures.

Food consumption surveys show that higher income families drink considerably more milk than do low-income families. It would

appear, therefore, that low-income families would readily purchase more fluid milk if the price were lower in relation to their food budgets.

A possible method of operating such a program would be as follows:

1. Eligible families could be issued coupons good for part of the purchase cost of milk from any retail store or dairy participating in the program.
2. State, county, or municipal welfare agencies, under an agreement with the Department, would be responsible for certifying of applicant families and issuing coupons.
3. Retail outlets accepting coupons would use them in partial payment to dairies in obtaining their regular deliveries for resale.
4. Dairies would be reimbursed directly by the Department or through a State agency, if the latter were willing and able to accept such responsibilities.
5. It is possible that voluntary arrangements could be worked out with producers and distributors to establish a special class price for additional milk consumed through this type of program. Similar arrangements were worked out in a previous program as described below.

Previous experience

Operational methods for this type of program would be similar to those used in the food-stamp plan (operated from 1939 to 1943) which is discussed in detail later in this report.

In addition, the Department operated prior to World War II a "relief milk program" which distributed fluid milk at a reduced price and generally through milk stations, to needy persons. The program was undertaken in Boston, Chicago, New Orleans, New York, St. Louis, and Washington, D. C.

The principal points of the latter program were: Farmers sold the milk at a price below the regular price for fresh fluid milk but above the price for manufacturing purposes. Milk distributors bid competitively for contracts to supply the certified families. Handlers received a certain amount per quart from the families and, in addition, received an indemnity payment from USDA. Only families certified as eligible by local authorities were permitted to buy milk at the special price. For fiscal year 1942, participating families purchased 65 million quarts at an estimated cost to the Government of $2.4 million. A study made in Washington, D. C., indicated that, during the program, participants purchased 2.65 quarts per person per week as compared to their previous purchases of 0.78 quart while a control group of nonparticipants purchased 0.56 quart per person, as compared to their previous purchases of 0.67 quart.

Effects on consumption

No current information is available as to the extent to which low-income families might wish to increase consumption at substantial price reductions.

However, it is estimated that fluid-milk consumption could be increased among low-income families by at least 1 quart per person per week. If a program could be extended to as many as 7 million of the 8 to 10 million persons who would be eligible for this type of program, total milk consumption could be increased by about 750 million pounds annually.

Cost of program

Experimental operations would be needed before any reasonably accurate estimate of costs could be made. It is roughly estimated, however, that a program of the size described above would cost in the neighborhood of $75 million annually.

Administrative costs would be relatively high in this type of program. State and local welfare organizations would be concerned with determination and certification of eligible families and distribution of stamps or purchase certificates. In addition, many thousands of retailers and dairies would be involved in handling some type of special coupons.

Administrative problems

A. *Mechanics of operation.*—Operating problems in this program would differ depending upon the particular form of operation established. Home delivery of milk would permit the program to operate through dairy companies with the dairy company maintaining delivery records. Operations through stores or milk stations would require some form of stamp or certificate. In the latter case, there would be additional problems depending on whether the certificate was valued at the full price of the milk and sold at a reduced price to the client or whether the certificate was valued at the amount of reimbursement and the client paid the difference between the store price and the value of the certificate. It might also be necessary to vary the rate of assistance by income of the family and milk prices in different areas.

B. *Compliance problems.*—In the case of the food stamp plan the major compliance problem was the purchase of nonfood items with stamps intended solely for food. Other compliance problems, such as sale of stamps for cash, occurred less frequently. It would be expected that such compliance problems could be considerably reduced in a family milk program because only one food item would be involved.

Legislative authority

Specific legislative authority would be needed in order to operate a program of this nature on a national basis. The program could be operated on a limited basis under section 32 of the act of August 24, 1935—existing legislation provides that section 32 funds must be spent principally for perishable foods other than those for which price support is mandatory such as milk and butterfat. Under this provision, therefore, the amount of section 32 funds available each year for a family milk program would depend upon the volume of section 32 expenditures on perishable foods for which price support is not mandatory.

TWO-PRICE PLAN FOR ENCOURAGEMENT OF GREATER FLUID-MILK CONSUMPTION

The objective of this proposal would be to increase sales and consumption of fluid whole milk and thereby reduce price-support purchases of manufactured dairy products.

Fluid-milk sales on retail home-delivery routes would be made at two different price levels. One would be the normal level of market prices for fluid milk and would cover base quantities equal to purchases during a recent representative period. The other price level would be lower, and would apply to sales in excess of base quantities. This

lower level would be made possible by authorizing use of milk at lower than the regular class I price.

Sales bases would be established for each customer on retail delivery routes at levels representing normal purchases, and the lower price would apply only to each consumer's purchases above the base quantities. This type of control could not be exercised through retail stores selling milk. In order to participate in the plan these stores would have to develop a quantity discount plan with their wholesale suppliers, applicable only to sales in excess of base quantities. The discount at the wholesale level would then be carried forward as a similar quantity discount to retail customers.

Because of the nature of the two-price plan, machinery would have to be established for auditing milk distributors' records as to base sales and the quantities, prices, and costs of the milk handled through the program. Provision would also have to be made from time to time to enlarge the normal sales bases to reflect market growth. Introduction of the plan in each market area should be carried out by negotiation with the milk producers and distributors and also State or Federal officials in cases of regulated markets. The negotiations with milk producers would turn on the amount of reduction from the established class I price for milk handled through the plan. Presumably the price for this milk would fall somewhere between local market price for milk used for manufacturing purposes and the local class I price. If effectively conducted, the reduction in dealers' cost to equivalent of manufacturing milk prices in the market need not reduce farmers' returns; the milk merely would be channeled to bottles for increased consumption instead of into factory products.

Any reduction in distributive margins would depend on decisions of local milk distributors. In markets where the difference between the local class I price to producers and the price of milk for manufacturing purposes was small, the CCC could, through payments, make possible a larger retail price reduction than the above price difference would permit.

Previous experience

There has been no previous experience with this particular kind of plan in the United States, although as discussed elsewhere in the report, programs have been in use which provided lower prices to a portion of the population.

Some administrative problems.

Several very serious administrative and trading practice problems are involved in the operation of this plan. On the surface, this plan for offering consumers substantially lower prices for increases in milk use holds considerable promise. The main drawback is that it would tend to stimulate serious price cutting at wholesale and retail store levels. The net result would be an unstable price structure and extreme difficulty in maintaining the base level of sales at normal prices. Inability to maintain base sales would endanger the entire program.

To establish sales bases for every distributor, every store handling milk, and for every retail customer purchasing milk on retail routes, would involve many administrative details. If, in the interest of simplifying the administrative problems, sales bases are established and maintained only at distributor levels, serious instability of market prices and competitive price relationships might be created. Each

firm, whether distributor or store, might try to jockey for competitive sales advantage and the end result could be such price cutting that would cut returns to farmers and to milk distributors. In markets in which minimum class prices for milk purchases from producers are established by Federal or State authority, milk distributors would be extremely reluctant to join in any plan whose inevitable effect would be to accentuate price cutting at wholesale and retail levels. In markets in which State authorities, 13 in number, have established and enforce minimum milk prices at wholesale and retail levels, negotiations for establishment of lower wholesale and retail prices would have to be undertaken.

Effectiveness in accomplishing objective

It is not possible to make an accurate estimate of the effectiveness of the plan in terms of increased consumption of fluid whole milk because of lack of operating experience with a plan of this kind. Nor is it possible to estimate accurately the expected sales increases with given price levels. The chief difficulty lies in the inability to determine whether consumers would react according to the difference between the normal price of milk and the reduced price, or according to the difference between the average price of milk with the plan and without the plan. Both types of reactions probably would prevail. It is likely, however, that the increase in purchases probably would be greater than it would be as a result of a reduction in average price (for all units) equivalent to that brought about by a reduction in cost of additional units, and therefore this method of price reduction would result in an increase in consumer expenditures. In other words, the effects of this method would be to bring an increase in consumer expenditures for an item with inelastic demand.

The establishment of this kind of plan would require negotiation with milk producers and distributors in each milk market into which the plan is introduced. The reduction in price of milk resulting from the plan would differ among markets, depending mainly on the prevailing differences between prices of class I and other milk. Aside from administrative costs, there would be no cost to the Federal Government unless it was desired to achieve reduction in the retail price of milk handled in the program, over the equivalent of difference between class I and the lower priced milk.

Administrative cost of operating the program, once it was established, would vary with the number of firms in each market and the compliance problems involved. It would probably be substantially larger than present costs of administering Federal milk orders (2 to 5 cents per hundredweight of all milk handled) because of the more complicated accounting and audit procedures which would be necessary. It would be necessary to conduct one or more pilot operations before reliable estimates could be made of the several aspects of the program, such as details of cost and its effectiveness.

Because of the administrative difficulties involved in carrying the necessary price stratification through to retail consumer levels, it has been suggested that the program might be limited to certain wholesale outlets such as hospitals, prisons, educational institutions serving meals, and perhaps also to all food establishments serving milk for consumption on the premises. Such a limited program would avoid the tendencies to price instability and difficulties of maintaining base

sales and would greatly reduce administrative problems and costs. But the increase in consumption of fluid milk to be expected under such a plan would be small because of budget limitations on public institutions and because the price reductions which could be achieved in restaurants would not be impressive. A reduction of 4 cents per quart is a reduction of only 1 cent per half pint.

PLENTIFUL FOODS PROGRAM

Through the plentiful foods program, food-trade groups and the Department cooperate in merchandising programs to increase the purchase and use of plentiful foods through normal channels of trade. Department cooperation in the industry's June dairy month promotion campaign is an annual feature of this program.

During June dairy month the Department assists the industry by bringing their promotional efforts to the attention of food wholesale and retail outlets and the press, radio, and television. This is accomplished through informational releases, direct contacts with key food distributors in major markets throughout the country, and through cooperative work with national and State dairy associations responsible for the industry's merchandising program. In addition, continuing attention is given to dairy products in heavy supply through the monthly Plentiful Foods List which is distributed to food trades groups, allied food industries such as restaurants and informational media.

As a result of these activities, the dairy industry's efforts to focus attention upon the abundant supplies of dairy products and their importance to good diets is supported in a variety of ways by the food trades and allied industries, in-store displays, food-store advertisements, food and women's page features in newspapers and on radio and television, and other promotions which stimulate sales of dairy products.

Previous experience

The plentiful foods program was developed in 1947. It was designed to enlist the cooperation of food trade groups in merchandising programs to increase purchases and use of plentiful foods. The program was an outgrowth of work undertaken with food trade groups during World War II which directed attention to unrationed plentiful foods as a means of easing pressure on scarce rationed items.

Effects on consumption of milk and dairy products

No direct measure is available on the effectiveness of this work in expanding markets for dairy products. In individual instances it is known that this type of activity has increased sales. On an overall basis, however, it is not possible to isolate any single one of the many factors which influence or determine consumption levels at a given period of time. Further, the results of a coordinated effort on the part of the Government and the dairy industry to expand consumption of dairy products may be more important in terms of future rather than present consumption levels.

Legislative authority

The program is operated under section 32 of the act of August 24, 1935.

FOOD STAMP PLAN

The food stamp plan [2] was a Federal subsidy paid to low-income consumers in the form of blue stamps to be used for the purchase of specified surplus foods in cooperating retail food outlets. As a condition for receiving the free blue stamps, consumers were required to buy specified quantities of orange-colored stamps to be used for the purchase of any food products. This was to maintain out-of-pocket food expenditures so that surplus products bought with the free blue stamps represented a net increase in food consumption. The program was initiated in May 1939 when large-scale unemployment existed. It was discontinued in 1943 when employment and demand for food both had increased sharply.

Effect on food consumption

During its 4-year period of operation, the food stamp plan showed the advantages of using regular trade channels to make additional foods available to low-income families. It proved to be an effective means of increasing total food purchases among families participating in the program. During the 4 years a total of $261 million was provided in added purchasing power to participating families.

However, the plan was more effective in the case of some commodities than in others. In meeting some seasonal surplus problems for perishables, a direct Government purchase during the peak production period was a more effective and economical method of stabilizing producers' prices. There were so many commodities eventually designated as surplus items to be bought with blue stamps that the program became considerably less effective in bringing about a net increase in consumption in specific items.

Butter was the only dairy product specifically included under the stamp program. Butter had been previously distributed under a direct distribution program at a rate about equivalent to the average national consumption. Under the stamp plan, studies indicated that 3 northern cities increased their consumption considerably, while 2 southern cities purchased only about half as much butter on a per capita basis as they had been receiving under direct distribution. Butter was listed as a surplus food 35 out of the 46 months that the plan was in operation.

Up to December 15, 1940, approximately one-fourth of the stamps were used to purchase butter, and one-fourth eggs. Fresh fruits and vegetables took another fourth and staples the balance. When pork was added in December, it took about one-fourth, chiefly at the expense of butter, eggs, and lard.

Program cost

Peak expenditure under this program was $112 million in the fiscal year 1942. In that year, nearly 4 million persons were participating.

It should be noted that the stamp plan administration made extensive use of relief labor to handle paperwork in the localities participating, and that both the cost of labor and the cost of food would be a great deal higher in any program operated under present circumstances.

[2] See concluding paragraph for description of similar program, The Food Allotment Plan.

Legislative authority

The program operated from May 1939 to February 1943 under section 32 of the act of August 24, 1935, with specific authorization made by Congress each year in appropriation acts.

FOOD ALLOTMENT PLAN

Legislation has been introduced in Congress on several occasions to provide for a food-allotment plan but no further action has developed.

The plan is essentially a modification of the food-stamp plan which would make low-income families eligible for food assistance in addition to welfare families eligible under the food-stamp plan. The plan establishes a basic food allotment per person per week in terms of quantities for specified groupings of foods with provision for modification by the Secretary. Food coupons would be sold to families at an amount not to exceed 40 percent of the household income or 25 percent of the face value of the coupons, whichever may be greater. These would be used as cash in grocery stores. The Secretary would be empowered to require each household to use not more than 33⅓ percent of the face value of food allotment coupons to buy specifically designated foods or to issue free coupons for designated commodities in conjunction with purchase of food-allotment coupons.

SECTION IV

OTHER PROPOSALS

A number of other proposals have been made for handling the dairy-surplus problem. Some of these can be conducted under present legal authority, while others would require new legislation. Moreover some of these proposals might be considered special cases, for example, of any one of the general proposals discussed in preceding sections.

CONTROL OF IMPORTS OF DAIRY PRODUCTS

Many different types of proposals for controlling imports have been suggested as a means of supporting domestic prices of dairy products as well as prices of other agricultural commodities. Generally, these proposals provide for a complete prohibition on all imports as long as domestic prices are below certain specified levels, such as parity, 90 percent of parity, etc.

In the case of dairy products, these import control proposals by themselves would not be adequate to support prices. Only a relatively small part of the total supply of dairy products (less than 1 percent) consists of imports.

Imports controls, however, can be used in connection with a dairy price-support program to prevent dairy products from being imported in such quantities and under such conditions as to materially interfere with the operations of a price-support program. When United States market prices are at support levels and these levels are above prices in foreign countries, substantial quantities of dairy products would be attracted to the United States from other surplus-producing nations, notwithstanding substantial tariffs in effect, in the absence of import controls. At the present time, import controls are in effect on certain manufactured dairy products (butter, Cheddar cheese, Edam and Gouda cheese, blue-mold cheese, designated Italian-type cheeses, nonfat dry milk solids, dried whole milk, dried buttermilk, dried cream, malted milk, and compounds) under the provisions of section 22 of the Agricultural Adjustment Act, as amended. These controls are in the form of quotas which are based on imports in a representative period.

PROHIBIT THE SALE OF LOW-QUALITY DAIRY PRODUCTS

It has been suggested that the surplus of dairy products might be eliminated and the price-support problem solved if low-quality dairy products were barred from the markets. The objective of such a proposal would be to reduce the total supply in the market and to strengthen the demand by offering consumers only high-quality products. It is generally recognized that the demand for all dairy products may be adversely affected if a small proportion of the total supply is of low quality.

The Federal Food, Drug, and Cosmetic Act, and regulations issued thereunder, prohibit interstate commerce in foods that are unfit for human consumption. Substantially all of the States have similar laws or regulations that make it unlawful to market such foods. The Federal law and most of the State laws, however, do not contain authority to prohibit the marketing of low-quality foods unless they are unfit for consumption or are improperly labeled.

A Federal law to prohibit interstate commerce in foods of quality below certain standards but not harmful to health would have far-reaching and unprecedented implications with respect to the Government regulation of both agricultural and industrial commodities. It would involve major policy questions. It is doubtful that such legislative action should be undertaken as a solution to a surplus and price-support problem.

Encouraging progress in quality improvement is being made in many dairy areas under regulatory and voluntary programs. Greater and faster achievement in this field through Federal, State, and industry cooperative efforts, would further strengthen the market demand for dairy products, improve returns to producers and reduce the need for price supports. It appears that the most effective approach to the quality problem is raising the quality of milk and butterfat in farm-separated cream used in making dairy products. It is primarily an industry job. Greater progress could be encouraged by the wider use of the voluntary Federal-State cooperative inspection and grading service now available to the industry, by more widespread practice among processors of paying farmers for milk and butterfat on a quality basis, and by more effective local regulations in some areas to prevent the purchase and processing of unsuitable milk and butterfat.

It occasionally has been suggested that low-quality dairy products be purchased and removed from the market under the price-support program. It is apparent that such action, which would provide a ready outlet for such products, would only discourage rather than encourage quality improvement. It also would involve problems of storage as well as use of such products in school lunch and other available outlets.

INCREASE THE MILK-FAT CONTENT OF FLUID MILK

It has been suggested that milk dealers be required to increase the milk-fat content of milk distributed for consumption as fluid milk as a means of solving the surplus problem. The feasibility of the proposal is doubtful. The minimum butterfat contents of milk sold for consumption as fluid are subject to State and other local laws and regulations rather than Federal regulations. The State minimums range from 3.0–3.8 percent of milk fat. Available data indicate that the fat test of fluid milk most commonly sold by dealers is well above the legal minimum in nearly all States of the Nation. Substantial increases in the minimums would be necessary to raise the milkfat content in most markets.

An increase in the milk-fat content of milk would require an increase in the retail price to consumers, if farmers were to benefit from such action. Both high-test and standard-test milk have been available to consumers in many markets at a price differential. The majority of consumers apparently are not willing to pay the extra price for the

higher test. It appears, therefore, that a general increase in retail price of milk would discourage consumption.

PROHIBIT OR TAX IMITATIONS AND SUBSTITUTES

Either the prohibition or taxation of margarine or of so-called imitation dairy products containing vegetable oils in place of milk fat occasionally is advocated as one of the solutions to the dairy surplus and price problem.

The dairy price problem in recent years has been attributable in large part to the marked decrease in consumption of butter. The uptrend in margarine consumption has been an important factor in this situation. For many years margarine was subject to Federal taxes as well as many State taxes or other restrictions. The Federal taxes were repealed by Public Law 459, effective July 1, 1950. This law prescribed certain regulations concerning the labeling and serving of the product. Most of the State taxes and restrictions on the product also have been removed.

Public Law 513, approved March 4, 1923, as amended, prohibits the shipment in interstate and foreign commerce of any filled milk—that is, fluid milk, evaporated or condensed milk, and dried milks—containing any fat or oil other than milk fat. This act now is in effect. Many States also have laws similar to the Federal Filled Milk Act. Filled cheese is subject to taxes under an act of June 6, 1896. Interstate commerce in so-called imitation ice cream made of vegetable fats in semblance of ice cream and properly labeled has not been prohibited since the decision of the Supreme Court in 1951 that imitation jam could be marketed in interstate commerce if properly labeled. A number of States have legalized the sale of such a product as imitation ice cream or under some other specified name.

The only two dairy products containing vegetable fat that have reached significant volumes are so-called imitation ice cream and filled evaporated milk. Substantial quantities of filled evaporated milk are produced and marketed within several States where permitted. Imitation ice cream also has increased in quantity in a number of States in recent years. The total volume of both of these products, however, as yet represents a very small though increasing percentage of the total supply of milk and its products. Further removal of the restrictions on filled and imitation dairy products, however, would result in large increases in volumes of these products which would intensify the dairy price support problem.

REVALUATION OF BUTTERFAT AND NONFAT SOLIDS

It has been suggested that a higher value on nonfat milk solids and a correspondingly lower value on butterfat would aid in solving the dairy problem. This proposal apparently has been based on the view that nonfat milk solids have had a very low market value considering their high nutritional value, as indicated by the low market price of nonfat dry milk solids, and that a decline in the market value of butterfat would permit a lower price of butter and the recapture of part of the market for the product which has been lost during the last 15 years. In appraising this proposal it is necessary to recognize that the market value of milk and its products, including nonfat

milk solids and butterfat, are determined mainly by the market supply and demand influences plus such supporting influence as may be exerted through price-support programs.

A basic problem of the dairy industry for many years has been what might be considered a chronic surplus of nonfat milk solids in relation to the market demand. In recent years there also has been a surplus of milk fat. Large quantities of skim milk, containing most of the nonfat solids of the milk separated on farms, has been retained on the farms where it has been fed to livestock or wasted. During the last 20 years more and more farmers have discontinued farm separating of milk and have delivered whole milk to processing plants instead of farm-separated cream. This has greatly increased the supply of milk solids available in the markets for human food uses. This large supply has tended to keep down the market values of the nonfat component of milk as reflected in the prices of nonfat dry milk solids, even though there has been an increase in demand for the various products containing nonfat solids.

The market prices of both butterfat and nonfat milk solids have been influenced in recent years by the Government purchases of butter and nonfat dry milk solids under the programs to support prices to farmers for milk and butterfat. It should be noted that milk contains about twice as many pounds of nonfat milk solids as butterfat. During the last 6 years Commodity Credit Corporation has purchased and moved from the market more than twice as many pounds of nonfat dry milk solids as of butter. Taking into consideration the fact that a large proportion of the butter is made from farm-separated cream, which leaves much of the nonfat milk solids on the farms, CCC has removed under the support program a much larger percentage of the commercial market supplies of nonfat milk solids than of butterfat.

CCC could have announced higher purchase prices for nonfat dry milk solids and lower purchase prices for butter and still supported the same levels of prices of manufacturing milk. The result would have been (*a*) a lower support level for butterfat in farm-separated cream which would have tended to discourage production and would have encouraged a further shift from farm-separated cream to whole milk deliveries, (*b*) somewhat greater consumption of butter in commercial trade outlets and smaller CCC purchases of that product, and (*c*) larger production of nonfat dry milk solids, lower consumption of that product in commercial outlets, and larger purchases of the product by CCC. It appears that, from the long-time standpoint, such action would have increased supplies and cut consumption and therefore would have intensified rather than helped to solve the problem of low market value of nonfat milk solids. Furthermore, present legislative provisions that set a minimum level of support for butterfat at 75 percent of parity, would have prevented a lower support level for butterfat in the 1954–55 marketing year.

APPENDIXES

APPENDIX A

Department of Agriculture

agricultural marketing service

NOTICE OF STUDY OF DAIRY PROGRAMS

Section 204 (f) of the Agricultural Act of 1954 provides as follows:

The Secretary of Agriculture is directed to make a study of the various methods of production control and of the various methods of price support which could be made applicable to milk and butterfat and their products, including programs to be operated and financed by dairymen; and to submit to Congress on or before the 3d day of January 1955, a detailed report thereof showing among other things the probable costs and effects of each type of operation studied and the legislation, if any, needed to put it into effect. The purpose of the study and report is to develop basic material which can be used by Congress in formulating an improved agricultural program for milk and butterfat and their products. Alternative programs are to be submitted for consideration by Congress and for possible submission to a referendum of dairy farmers. The Secretary may conduct such hearings and receive such statements and briefs in connection with such study as he deems appropriate.

Pursuant to such statute, the Secretary of Agriculture is making a study of the various methods of production control and of price support which could be made applicable to milk and butterfat and their products with the view of submitting a detailed report to the Congress on or before January 3, 1955.

Any interested person may submit any statement or brief concerning any method for controlling the production of milk or for supporting the prices of dairy products. All submissions should be addressed to the Secretary of Agriculture, United States Department of Agriculture, Washington 25, D. C. Submissions should be made as soon as possible but in no event later than November 15, 1954, in order that they may be analyzed thoroughly.

Done at Washington, D. C., this 19th day of October 1954.

Frederick V. Waugh,
Director, Agricultural Economics Division,
Marketing Research and Statistics.

APPENDIX B

Price-Support Programs in Major Foreign Dairy Countries [1]

INTRODUCTION

In appraising domestic types of price-support programs for use in the United States, it is of value to know the provisions of such programs in effect in the major foreign dairy countries. The United

[1] General information in this section was assembled by the Foreign Agricultural Service, mainly on the basis of information supplied by the agricultural attachés.

States is not the only country with dairy surpluses. Available information indicates that the present support program of the United States is not as intensive or as all-encompassing as some of the foreign programs now in use. There are consumer subsidy programs to maintain or encourage consumption of dairy products and subsidy programs and support programs to maintain production. In some instances the price to the consumer is subsidized to encourage consumption at the same time that the price to the producer is subsidized to encourage production. Some countries also subsidize the export of dairy products to the extent that the export price of butter and cheese is less than the domestic wholesale price. In determining the effectiveness of various programs to increase consumption of dairy products and the merit of subsidy programs, it must be kept in mind that all other major dairy-producing countries, in one way or another, have prevented dairy products from following normal market channels and seeking prices based on supply and demand.

New Zealand

The New Zealand Government subsidizes the price of butter and fluid milk for local consumption. The method of subsidization is quite simple in purpose; namely, to keep the price of two of New Zealand's basic foodstuffs at a low level as part of a program to keep the general cost of living down and to encourage the consumption of these products. The funds for these subsidies come from general tax receipts and the cost is thus distributed over the whole community. In the fiscal year ending March 31, 1954 (the last year for which complete figures are available) butter subsidies cost a total of £5.3 million (1 pound equals about $2.79 U. S.) and milk subsidies cost a total of £3.1 million.

The method of subsidization for milk and butter, although involved in an accounting sense, is quite simple in concept. The Government decides the level at which it wishes to keep the retail price of butter and fluid milk. Throughout 1954, the retail price of milk has been set at 9 pence (1 pence equals about 1 cent U. S.) for an imperial quart while the retail price of butter has been set at 2 shillings (1 shilling equals about 14 cents U. S.) per pound.

The extent of subsidization necessary to achieve this price in the case of butter is directly related to the prices guaranteed to farmers. The actual cost of the butter as it goes to the consumer is computed from the calculated guaranteed price plus costs involved in getting butter into the hands of the consumer. This price is higher than the pegged retail price and the difference is made up in a direct payment by the Government to the wholesaler. At the present time, official figures indicate that the subsidy on butter is 1 s. ¼ d. per pound.

In the case of fluid milk, the subsidy calculation is much more complicated because of different conditions in different milk-supply areas. In addition, milk-supply authorities secure their milk from producers by different contract arrangements. However, the subsidy on fluid milk is indirectly related to the guaranteed price which only operates on butter and cheese but paces the entire dairy industry price structure. At the present time, it is estimated that the milk subsidy by the Government is 3½ pence on a quart of milk.

Dairy products prices are supported to reduce instability in producers' incomes. The Government introduced guaranteed prices effective from 1937 onward. At the outset of each dairy marketing season

which begins on September 1, the Dairy Products Marketing Commission announces the price at which it guarantees to buy butter and cheese. In determining this price, the Dairy Commission is required by statute to take into consideration the following factors:

(*a*) The necessity in the public interest of maintaining the stability and efficiency of the dairy industry.

(*b*) The costs involved in the efficient production of dairy produce.

(*c*) The general standard of living of persons engaged in the dairy industry in comparison with the general standard of living throughout New Zealand.

(*d*) Estimated cost of marketing and administration.

(*e*) Taking all these points into account, the price fixed is to be such that any efficient producer engaged in the dairy industry under usual conditions and in normal circumstances should be assured of a sufficient net return from his business to enable him to maintain himself and his family in a reasonable state of comfort.

The guaranteed price is the price paid to the dairy companies by the Marketing Commission for butter and cheese on an f. o. b. basis. The dairy factories then make payouts to suppliers which vary according to differences in factory costs, which may be above or below the standard factory costs allowed.

In some of the years when the guaranteed price was below the actual prices received for dairy products as marketed, the difference was placed into industry reserve accounts which at the present time stand at about £24 million. In the last 2 years, however, a total payout was made in the form of an additional payment to dairy companies for distribution to producers or for capital development and improvement so that total returns went to producers.

If the returns actually received in the marketing of dairy products are less than guaranteed prices, the Government is presently committed to maintain the guaranteed price through the use of industry reserve funds.

The guaranteed price scheme only applies directly to butter and cheese. However, by supporting the returns from the main dairy products, the guaranteed price system indirectly affects the prices of all dairy products.

New Zealand's dairy price-support operations do not presently envisage the possibility of supporting (through stockpiling or any other method) the price at which New Zealand will sell its products in the export markets. The present intention is to dispose of the products at the market prices and then if necessary maintain producer incomes from reserve funds. It is not likely that this policy will change. Highly dependent on the export market for dairy products, the New Zealand dairy industry has no choice but to meet world market prices as best it can, and then attempt to cushion to the extent practical the effect in any one year on farmer incomes.

Denmark

Denmark has fewer subsidies than the other major dairy-producing countries. However, in order to encourage consumption, the price that the consumer pays for fluid milk is subsidized. The price is based on a butter price of 4.50 kroner per kilo which is lower than the actual butter price established by the Butter Export Board. The

difference between the 4.50 kroner per kilo and the actual price paid to dairies bottling fluid milk is covered by a subsidy paid by the Government and corresponds to 1 ore per kilo of milk for each 25 ore by which the butter price exceeds 4.50 kroner per kilo (1 kroner equal 14.5 United States cents—100 ore equal 1 kroner).

The subsidy is paid direct to the dairies bottling fluid milk and compensates them for part of the processing cost and thus they can wholesale their milk for a lower price. This lower wholesale price is reflected in a lower retail price to consumers.

Australia

The Australian Government, in order to encourage consumption, maintains the domestic retail price for butter and cheese at a specific level. This is done by paying subsidies direct to the manufacturers to compensate for part of the manufacturing cost. The manufacturers can then wholesale these products at a lower price which is reflected in a lower price to the consumers. The subsidy in the case of butter was reported in July 1954 to be approximately 10.06 United States cents per pound.

Australia also subsidizes butter exported on contract and exports of cheese. These subsidies result in higher domestic wholesale prices for these products than those received for the butter exported on contract and for the cheese that is exported.

Switzerland

In Switzerland, the consumer price of both fluid milk and butter is also subsidized in order to encourage consumption of these products. The Government makes payments direct to the manufacturers from a compensation fund supported by an import tax on butter. If greater payments are necessary to lower the price of fluid milk and butter than can be made by the revenue from the import tax, the deficits are paid by the Government from general funds. Thus part of the manufacturing costs are compensated for by the Government subsidy resulting in a lower wholesale price which results in a lower retail price for these products.

Netherlands

In the Netherlands, the Ministry of Agriculture maintains an agricultural equalization fund from which direct subsidies are paid to milk producers. In addition to the ministry fund, the industry maintains a dairy fund supported by direct levies on all milk producers.

Direct subsidy payments are made from the dairy fund to producers when it is necessary to encourage delivery of milk for fluid consumption and payments are made to producers of milk used for butter or cheese if it is desired to encourage the manufacture of these products. The Dairy Purchase Bureau, which is maintained by the levy assessed against all producers, purchases surplus products at a guaranteed price and resells such products on the world market for the best price obtainable. The Dairy Purchase Bureau thereby carries out a producer-financed self-help program. In addition the Netherlands Government has paid special subsidies to enable Dutch exporters to compete with foreign quotations on export markets. Payments from the dairy fund have also been used for this purpose.

The Netherlands Government has established 2.5 percent butterfat as the fat content for milk sold for fluid consumption. By keeping

the fat content low, the price the consumer pays for milk is less; thus consumption is encouraged. However, such a procedure makes more butterfat available that has to find a market in other products—principally butter.

Canada

Canada has a price-support system comparable to the purchase program now used in the United States in that a floor price for butter f. o. b. Montreal is guaranteed by the Agricultural Price-Support Board.

In 1953, the Government acquired the spring and summer surplus of butter production at 58 cents a pound, No. 1 grade, basis Montreal. On October 1, 1953, when the Government began to supply the domestic market with butter from its accumulated stocks the total butter stocks were 94 million pounds. The Government stocks have been offered for domestic use at about 61 cents wholesale. One of the original objectives of this price-support and purchase program for butter was to stabilize prices throughout the year and to avoid the excessive winter prices that have occurred in the past when winter supplies were short. Surplus milk production in 1953 tended to be reflected in the butter surplus and the Government accumulated butter stocks in excess of normal pipeline supplies.

During the past year, the Agricultural Products Board, operating as the agent for the Agricultural Price Support Board, continued to be buyers of all Grade 1 butter tendered to the Board at a price of 58 cents f. o. b. Montreal or Toronto with appropriate discounts for butter delivered at other stations. During the late spring and early summer months, the Agricultural Products Board was also a seller of about 25 million pounds of old 1953 butter in rotating its stocks. As an inducement to wholesalers to buy and dispose of butter made in 1953, the Government resold its April 1 carryover stocks at 56 cents a pound, basis Toronto and Montreal, thereby taking a loss of about 5 cents per pound when storage and handling costs are taken into consideration.

The Board acquired the bulk of the 1954 production at its support price of 58 cents and is now making its stocks available to wholesalers at the same price as a year ago, namely, 61 cents basis Montreal or Toronto. At this wholesale price, retail prices are 64 to 66 cents a pound.

Butter is under import control in Canada. Only the Government Agricultural Products Board is authorized to make imports and by this means the Government is protected against importation at prices below the support price. In connection also with tariff negotiations and a lowering of the import duty on cheese, there is an understanding with New Zealand that no exports to Canada will be made without consulting and securing prior approval of the Canadian Government.

The Dominion Government has no direct price-support measures at the present time applying to cheese. It does, however, have an agreement with the Ontario Cheese Marketing Board whereby under the Agricultural Products Cooperative Marketing Act the Federal Government guarantees an "initial payment" to cheese factories of 24 cents a pound. The Ontario Cheese Marketing Board, operating under provincial legislation, is trying to maintain a factory price of 30 cents.

In accordance with Ontario Provincial legislation the endorsement by producers of a Marketing Board for a given commodity makes it obligatory for all producers to market their produce through the Board. The Board currently has a price agreement with the wholesale cheese trade at 30 cents a pound. The Board is authorized by the producers to deduct a fee of 2 cents per pound on all cheese sold and the fund created thereby may be used to subsidize exports. Some small sales have been made to the United Kingdom and to other markets at 28 cents f. o. b. Montreal but the subsidy of 2 to 4 cents a pound has not been sufficient to bring about a competitive price in world markets. The volume of export sales has accordingly been small. Stocks are on the large side—49 million pounds on October 1—but only 1 million pounds and 7 million pounds larger than a year ago and 2 years ago, respectively.

In 1953, the Dominion Government became a buyer of 10 million pounds of distress stocks of dried skim milk. These stocks were disposed either by sale or gift and since that purchase the government has not bought, or directly supported prices of, skim milk powder.

United Kingdom

The United Kingdom is not a major producer of dairy products. It is, however, the world's greatest importer and, therefore, a major factor in the world market for these products. Spencer and Johnson,[2] in reporting on milk pricing and distribution in Great Britain, noted considerable similarity between the British and American systems, but also pointed out significant differences in the type of producer organization, methods of pricing milk and the extent of Government regulation.

The United Kingdom has a history of subsidization of milk. During the year which ended March 1954, all United Kingdom subsidies applicable to milk amounted to approximately 84 million pounds sterling (235 million United States dollars). This included 39.5 million pounds for welfare programs, including school milk, milk for pregnant women, and so forth.

There are milk-marketing boards in England, Wales, and three in Scotland. Before the war the boards were third parties to contracts between producers and distributors. They acted in the apparent interest of the producers. They fixed the monthly wholesale prices for liquid consumption and price of milk to manufacturers which would allow the manufacturer to compete with imported products. However, this was done after consultation with distributive interests as represented by the Central Milk Distributive Committee. The boards also had power to set the minimum retail prices for milk and, at the distributors' request, the minimum margins. The boards handled all sales and each month the proceeds received by each board were pooled and, after deductions to cover administrative expenses, quality premiums, and to set up a reserve, a pool price was paid, varying by regions, to producers.

[2] Spencer, L., and Johnson, S., Milk Distribution and Pricing in Great Britain, Cornell Experiment Station Bul. 902, August 1953.

At the onset of the war when the Ministry of Food took over the control of foodstuffs, the boards acted as agents for the Food Ministry in the purchases of milk from producers and sales to processors and distributors. The average price to the producer was fixed annually, the seasonal scale of prices being agreed upon between the Government, the boards, and the National Farmers' Unions.

Since April 1, 1954, the marketing powers of the boards have been restored to them by the Ministry of Food. The powers now being exercised by the boards differ from the prewar system in three main respects. The boards no longer act as third parties to contracts, but now buy milk from the producers and sell it to the distributors; this is a policy carried over from the Ministry of Food operations. Joint committees, made up of representatives of the boards, and the trades, and agricultural interests, have been set up in each marketing area to fix manufacturing milk prices and, at a later stage, fluid milk prices. Lastly, the boards are no longer empowered to prescribe minimum retail prices for fluid milk; so long as the consumer subsidy is in force the Government assumes that prerogative.

The present (April 1954 to April 1955) guaranteed average price for the United Kingdom, set at 3 shillings one-half pence per gallon (about 4.134 cents per pound) was broken into a guaranteed price for a so-called standard quantity for each of the 5 areas. If milk production in any area exceeds the standard quantity, which is really the actual level of total sales during the preceding 12-month period, then the effective rate would be reduced, depending on the amount the district produced over its standard quantity.

In each area the guarenteed price is further broken down into a kind of base—surplus arrangement. In 1954–55 what would be the base amount is set at 80 percent of the standard quantity for the district. The lower price applicable to the remaining 20 percent would represent what each board and the Government agreed would be a likely average manufacturing price. This has been calculated for the present marketing year at about 1 shilling 6 pence an imperial gallon (about 2.04 cents a pound).

The key to the arrangement is the amount and value of the surplus milk, the price of which is set in terms of price competition with the imported dairy products. Once this has been determined and the amount of the milk delivered determined as surplus, then the base (or fluid use milk) price is set to return the producer the guaranteed price. With the price of 1 shilling 6 pence per gallon (about $2.04 per 100 pounds) set for manufacturing milk, to return the guaranteed price of 3 shillings one-half pence (about $4.13 per 100 pounds) the 80 percent of the standard quantity set as fluid necessarily would be 3 shillings 6 pence a gallon (about $4.90 per 100 pounds).

The Government makes up any deficit between net revenues from total sales by each board and the amount to which the board would be entitled to (and presumably paid to producers) for the overall guaranteed price.

APPENDIX C

STATISTICAL SUMMARY OF PRICE SUPPORT AND DISTRIBUTION PROGRAMS

Purchases of dairy products in the United States by a Government agency, to support prices have been made from time to time since the 1930's. Prior to World War II purchases were made in a general attempt to raise prices to farmers from comparatively low percentages of parity and to help obtain supplies for relief distribution. During the war large purchases were made for various emergency purposes. Since the war the programs have been designed to achieve specific price levels, as required by law and announced in advance of each marketing year by the Secretary of Agriculture. Data on purchases are shown in table C–2. In other tables data are shown on distribution, quantities, value, and realized loss to the Commodity Credit Corporation.

TABLE C1.—*Dairy products: Volume and expenditures on products handled under sec. 32, fiscal years 1937–54* [1]

Fiscal year	Butter								Cheese		Evaporated milk		Nonfat dry milk		Fluid milk						Total	
	Food stamp plan		Direct distribution		Exportation		Total		Direct distribution		Direct distribution [2]		Direct distribution [2]		Direct distribution		Diversion		Total		Quantity (milk equivalent) [3]	Value [4]
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value		
	Thous. lbs.	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Thous. lbs.*	*Thous. dols.*	*Mil. lbs.*	*Thous. dols.*
1937			357	122			357	122			4,350	246									16	368
1938			15,030	4,129			15,030	4,129	3,463	499			6,471	367	26,870	881			26,870	881	362	5,876
1939	143	39	122,287	34,704	802	24	123,232	34,768			3,202	172	13,997	707	131,722	3,349			131,722	3,349	2,603	38,996
1940	9,588	3,010	31,687	9,408	239	9	41,514	12,427	4,284	642	[2] 67,814	[2] 3,628	[2] 5,006	[2] 347	4,680	148	80,247	693	84,927	841	1,104	17,885
1941	29,154	10,272	6,619	2,075			35,773	12,347			4,350	375	2,120	23			174,935	2,111	174,935	2,111	900	14,856
1942	25,105	10,323	9,041	3,221			34,146	13,544	5,000	1,250	119,494	9,622	7,300	1,095			192,085	3,869	192,085	3,869	1,182	29,380
1943	5,872	2,544	1,366	520			7,238	3,064	1,999	611	[5]	[5]	985	134			224,586	6,573	224,586	6,573	389	10,383
1944											32,340	3,611									70	3,611
1945																						
1946																						
1947																						
1948																						
1949													13,747	1,823								1,823
1950			19,128	12,751			19,128	12,751					12,069	2,791							383	15,542
1951																						
1952													20,764	4,175								4,175
1953			23,301	16,799			23,301	16,799	1,808	716			20,734	4,411							484	21,926
1954			81,973	58,798			81,973	58,798	52,798	22,716			36,292	7,192							2,167	88,706

[1] Sec. 32 of the Agricultural Act of Aug. 24, 1935, as later amended, authorized the Secretary of Agriculture to use an amount equal to 30 percent of the annual custom receipts to encourage the exportations of agricultural commodities and the products thereof and to encourage domestic consumption of such commodities by diverting them from normal channels of trade or increasing their use among persons in low-income groups.

[2] Includes the following exportations in 1940: 1,911,215 pounds of evaporated milk valued at $110,851 and 25,000 pounds of nonfat dry milk valued at $1,575.

[3] Fat solids basis.

[4] Computed from unrounded figures.

[5] Value less than $500.

Source: Compiled from records of the operating agencies of the U. S. Department of Agriculture.

TABLE C2.—*Volume and cost of dairy products acquired under price support program, Jan. 1, 1949, to Oct. 31, 1954*

[Figures in thousands]

BUTTER

Period	Quantity purchased [1]	Total product cost	Carrying charges [2]	Total cost
	Pounds	*Dollars*	*Dollars*	*Dollars*
Jan. 1 to Dec. 31, 1949	113,980	69,569	2,374	71,943
Jan. 1, 1950, to Mar. 31, 1951	127,879	75,850	2,257	78,107
Apr. 1, 1951, to Mar. 31, 1952	221	142	2	144
Apr. 1, 1952, to Mar. 31, 1953	143,348	96,315	2,670	98,985
Apr. 1, 1953, to Mar. 31, 1954	[3] 383,224	248,917	9,699	258,616
Apr. 1 to Oct 31, 1954 [4]	174,701	98,825	2,586	101,411
Total [4]	943,353	589,618	19,588	609,206

CHEESE

Jan. 1 to Dec. 31, 1949	25,555	8,403	464	8,867
Jan. 1, 1950 to Mar. 31, 1951	108,953	35,131	2,283	37,414
Apr. 1, 1951, to Mar. 31, 1952	829	307	14	321
Apr. 1, 1952, to Mar. 31, 1953	75,334	29,979	2,226	32,205
Apr. 1, 1953, to Mar. 31, 1954	[3] 455,622	174,009	8,820	182,829
Apr. 1 to Oct. 31, 1954 [4]	118,573	40,104	1,610	41,714
Total [4]	784,866	287,933	15,417	303,350

NONFAT DRY MILK SOLIDS

Jan. 1 to Dec. 31, 1949	324,273	38,824	4,589	43,413
Jan. 1, 1950, to Mar. 31, 1951	352,526	42,177	4,368	46,545
Apr. 1, 1951, to Mar. 31, 1952	52,405	7,855	848	8,703
Apr. 1, 1952, to Mar. 31, 1953	206,255	34,813	3,027	37,840
Apr. 1, 1953, to Mar. 31, 1954	673,312	105,616	9,891	115,507
Apr. 1 to Oct. 31, 1954 [4]	341,964	51,837	2,168	54,005
Total [4]	1,950,735	281,122	24,891	306,013

ALL DAIRY PRODUCTS

Jan. 1 to Dec. 31, 1949		116,796	7,427	124,223
Jan. 1, 1950 to Mar. 31, 1951		153,158	8,908	162,066
Apr. 1, 1951, to Mar. 31, 1952		8,304	864	9,168
Apr. 1, 1952, to Mar. 31, 1953		161,107	7,923	169,030
Apr. 1, 1953, to Mar. 31, 1954		528,542	28,410	556,952
Apr. 1 to Oct. 31, 1954 [4]		190,766	6,364	197,130
Total [4]		1,158,673	59,896	1,218,569

[1] Quantities acquired under each support program but not necessarily delivered within the time periods shown.

[2] Carrying charges include storage, transportation, and other handling expenses.

[3] Includes 5,137,000 pounds of butter and 83,100,000 pounds of cheese sold in March 1954 under conditions to be bought back in April.

[4] These totals do not include costs of supplies which had not been delivered to CCC under purchase contracts as of Oct. 31, 1954.

NOTE.—Data available currently in Report of the President of the Commodity Credit Corporation and Report of Financial Condition and Operations, Commodity Stabilization Service, issued monthly.

TABLE C3.—*Butter: Volume and estimated CCC loss on sales, donations, and other dispositions of butter acquired under price-support program, fiscal years 1949 to date*

[Figures in millions]

SALES [1]

Fiscal year	Quantity	Cost	Total sales proceeds	Estimated loss (or gain)
	Pounds	*Dollars*	*Dollars*	*Dollars*
1949				
1950	28.4	17.7	17.8	[2] 0.1
1951	138.8	85.9	83.9	2.0
1952	.2	.1	.2	([2] [3])
1953	23.6	16.0	15.5	.5
1954	105.7	71.7	59.4	12.3
July–October 1954 [4]	18.0	12.2	8.2	4.0
Total	314.8	203.6	185.0	18.6

DONATIONS [5]

1949				
1950	6.8	4.3		4.3
1951	67.6	42.2		42.2
1952	([3])	([3])		([3])
1953				
1954	33.1	22.4		22.4
July–October 1954 [4]	9.5	6.4		6.4
Total	117.0	75.3		75.3

TOTAL DISPOSITION [6]

1949				
1950	35.2	22.0	17.8	4.1
1951	206.4	128.1	83.9	44.2
1952	.2	.1	.2	([3])
1953	23.6	16.0	15.5	.5
1954	139.4	94.3	59.5	34.8
July–October 1954 [4]	27.8	18.7	8.3	10.4
Total	432.7	279.2	185.2	94.0

[1] Principal outlets are domestic commercial sales, sales for export, direct distribution (sec. 32) and U. S. Army. Butter used under sec. 32 was financed by Government funds available to Department of Agriculture for use in disposing of surplus agricultural commodities.

[2] Gain.

[3] Less than 50,000.

[4] Preliminary.

[5] Donations under sec. 416, Agricultural Act of 1949, as amended.

[6] Includes other dispositions, costs, and recoveries not specified above. Losses of $3.3 million from butter oil program not included.

NOTE.—Totals and estimated loss (or gain) for individual years are not always additive because they were computed from unrounded figures. Compiled from report of the President of the Commodity Credit Corporation and Report of Financial Condition and Operations, issued monthly by the Commodity Stabilization Service.

TABLE C4.—*Cheese: Volume and estimated CCC loss on sales, donations and other dispositions of cheese acquired under price support program, fiscal years 1949 to date*

[Figures in millions]

SALES [1]

Fiscal year	Quantity	Cost	Total sales proceeds	Estimated loss (or gain)
	Pounds	*Dollars*	*Dollars*	*Dollars*
1949				
1950	7.4	2.5	2.5	
1951	98.1	33.8	18.8	15.1
1952	.8	.3	.3	([2] [3])
1953	1.4	.6	.6	([2] [3])
1954	139.8	53.7	50.9	2.8
July to October 1954 [4]	13.3	5.4	5.2	.1
Total	260.8	96.3	78.3	18.0

DONATIONS [5]

1949				
1950	3.2	1.0		1.0
1951	25.8	8.9		8.9
1952	([3])	([3])		([3])
1953				
1954	24.2	9.9		9.9
July to October 1954 [4]	7.2	3.0		3.0
Total	60.4	22.8		22.8

TOTAL DISPOSITION [6]

1949				
1950	10.6	3.5	2.5	1.0
1951	123.8	42.7	18.8	24.0
1952	.8	.3	.3	([2] [3])
1953	1.4	.6	.6	([2] [3])
1954	164.2	63.6	51.0	12.7
July to October 1954 [4]	20.6	8.4	5.2	3.1
Total	321.4	119.2	78.4	40.8

[1] Principal outlets are domestic commercial sales, sales for export, direct distribution (sec. 32), and U. S. Army. Cheese used under sec. 32 was financed by Government funds available to Department of Agriculture for use in disposing of surplus agricultural commodities.
[2] Gain.
[3] Less than 50,000.
[4] Preliminary.
[5] Donations under sec. 416, Agricultural Act of 1949, as amended.
[6] Includes other dispositions, costs, and recoveries not specified above.

NOTE.—Totals and estimated loss (or gain) for individual years are not always additive because they were computed from unrounded figures. Compiled from Report of the President of the Commodity Credit Corporation and Report of Financial Condition and Operations, issued monthly by the Commodity Stabilization Service.

TABLE C5.—*Nonfat dry milk solids: Volume and estimated CCC losses from sales, donations, and dispositions of nonfat dry milk solids acquired under the price support program, fiscal years 1949 to date*

[Figures in millions]

SALES [1]

Fiscal year	Quantity	Cost	Total sales proceeds	Estimated loss (or gain)
	Pounds	*Dollars*	*Dollars*	*Dollars*
1949	7.8	0.9	1.0	[2] 0.1
1950	158.5	21.4	10.0	11.5
1951	339.0	44.5	18.4	26.1
1952	57.5	9.0	7.9	1.1
1953	51.2	9.1	6.3	2.8
1954	462.7	81.2	16.3	64.9
July–October 1954 [3]	300.5	49.8	10.2	39.5
Total	1,377.2	215.9	70.2	145.7

DONATIONS [4]

1949				
1950	25.0	3.3		3.3
1951	123.4	16.5		16.5
1952	.9	.1		.1
1953	10.9	1.9		1.9
1954	100.9	17.6		17.6
July–October 1954 [3]	25.3	4.4		4.4
Total	286.5	43.8		43.8

TOTAL DISPOSITION [5]

1949	7.8	0.9	1.0	[2] 0.1
1950	183.5	24.7	10.0	14.7
1951	462.4	61.0	18.4	42.6
1952	58.4	9.1	7.9	1.2
1953	63.1	11.2	6.4	4.8
1954	564.7	98.9	16.5	82.4
July–October 1954 [3]	326.1	54.2	10.3	43.9
Total	1,665.9	260.0	70.6	189.4

[1] Principal outlets are domestic commercial sales, sales for export, direct distribution (sec. 32), and U. S. Army. Nonfat dry milk solids used under sec. 32 were financed by Government funds available to Department of Agriculture for use in disposing of surplus agricultural commodities.
[2] Gain.
[3] Preliminary.
[4] Donations under sec. 416, Agricultural Act of 1949, as amended.
[5] Includes other dispositions, costs, and recoveries not specified above.

NOTE.—Totals and estimated loss (or gain) for individual years are not always additive because they were computed from unrounded figures. Compiled from Report of the President of the Commodity Credit Corporation and Report of Financial Condition and Operations, issued monthly by the Commodity Stabilization Service.

TABLE C6.—*Total dairy products: Volume and estimated CCC losses from sales, donations, and other dispositions of dairy proaucts acquired under the price-support program, fiscal years 1949 to date.*

[Figures in millions]

SALES [1]

Fiscal year	Cost	Total sales proceeds	Estimated loss (or gain)
1949	$0.9	$1.0	[2] $0.1
1950	41.6	30.3	11.3
1951	164.3	121.1	43.2
1952	9.4	8.5	1.0
1953	25.7	22.4	3.3
1954	207.6	126.6	81.0
July–October 1954 [3]	70.0	23.9	46.0
Total	519.4	333.8	185.6

DONATIONS [4]

1949			
1950	$8.6		$8.6
1951	67.6		67.6
1952	.1		.1
1953	1.9		1.9
1954	49.9		49.9
July–October 1954 [3]	13.8		13.8
Total	141.9		141.9

TOTAL DISPOSITION [5]

1949	$0.9	$1.0	[2] $0.1
1950	50.2	30.3	19.9
1951	231.9	121.1	110.8
1952	9.6	8.5	1.1
1953	27.8	22.6	5.2
1954	257.7	127.0	130.7
July–October 1954 [3]	83.9	23.9	59.9
Total	661.9	334.4	327.5

[1] Principal outlets are domestic commercial sales, sales for export, direct distribution (sec. 32) and U. S. Army. Dairy products used under sec. 32 were financed by Government funds available to Department of Agriculture for use in disposing of surplus agricultural commodities.
[2] Gain.
[3] Preliminary.
[4] Donations under sec. 416, Agricultural Act of 1949, as amended.
[5] Includes other dispositions, costs, and recoveries not specified above.

NOTE.—Total and estimated loss (or gain) for individual years are not always additive because they were computed from unrounded figures. Compiled from Report of the President of the Commodity Credit Corporation and Report of Financial Condition and Operations, issued monthly by the Commodity Stabilization Service.

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